



**TAMIL NADU ARASU CABLE TV
CORPORATION LTD (TACTV)
தமிழ்நாடு அரசு கேபிள் டிவி நிறுவனம்
(A Government of Tamil Nadu Undertaking)**



TENDER REFERENCE NO. TACTV/Tender/004/2022

**Tender for supply of High Definition Set Top Boxes and Digital services for TACTV
by providing rights of advertising and consequential revenue at Landing page of
TACTV**

Date of Release of Tender	5.1.2023
Prebid Meeting	13.1.2023
Last Date for Submission of Bid	27.1.2023 (3.00 PM)
Date of Opening of Bid	27.1.2023 (3.30 PM)
Cost of Bid Document:	Rs.1000

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IMPORTANT NOTICE

This tender procedure is governed by the Tamil Nadu Transparency in Tenders Act, 1998 and the Tamil Nadu Transparency in Tender Rules, 2000 as amended from time to time. In case of any conflict between the terms and conditions in the tender document and the Tamil Nadu Transparency in Tenders Act, 1998 and The Tamil Nadu Transparency in Tender Rules, 2000 the Act and Rules shall prevail.

TAMIL NADU ARASU CABLE TV CORPORATION LIMITED - Chennai.

(A Government of Tamil Nadu Undertaking)

Tender NOTICE No: TACTV/Tender/004/STB/2022

Tamil Nadu Arasu Cable TV Corporation (TACTV) intends to invite proposals from reputed companies to supply High Definition Digital Cable TV Set Top Boxes to TACTV. The cost of the boxes so supplied will be paid for to the successful bidder by providing right of advertising and consequential revenue from (for a period of three years)the 'landing page' of TACTV through a digital marketing platform, that is also to be developed.

.1	Tender Inviting Authority	Managing Director Tamil Nadu Arasu Cable TV Corporation Ltd No:807, Anna Salai, 4 th Floor, P.T.Lee. Chengalvaraya Naicker Trust Building, Chennai 600 002. Ph:044-28432911, Fax: 044-28432913 Email: tactv@tactv.in . Website:tactv@tactv.in
2	Name of the work	Supply of High Definition Set Top Boxes and Digital services for TACTV by providing rights of advertising and consequential revenue at Landing page of TACTV for a period of three years
3	Tender document, available place, cost and due date for obtaining tender	Tender documents can be purchased on all working days from 5.1.2023 to 27.1.2023 between 11 AM to 3.00 P.M. from the address mentioned in Sl.No:1 above on payment of Rs.1000/- by way of a Demand Draft drawn on any Indian Nationalized / Scheduled Commercial Bank in favour of "Tamil Nadu Arasu Cable TV Corporation Ltd" payable at Chennai. Alternatively, the tender documents can be downloaded at Free of Cost from TACTV's website www.tactv.in and www.tenders.tn.gov.in .
4	Earnest Money Deposit (EMD)	Rs.1.25 Crore in the form of a Demand Draft drawn on any Indian Nationalized/Scheduled Commercial Bank in favour of "Tamil Nadu Arasu Cable TV Corporation Ltd" payable at Chennai or in the form of Bank Guarantee.
5	Date, Time and place of Pre-Bid meeting:	13.01.2023 at 3.00 PM at the address mentioned in Sl.No:1 above.
6	Due Date, Time and place of submission of Tender	27.01.2023 at 3.00 P.M. at the address mentioned in Sl.No:1 above.
7	Date, Time and Place of Tender opening	27.01.2023 at 3.30 P.M. at the address mentioned in Sl.No:1 above.

Managing Director, TACTV

2.PREAMBLE

Tamil Nadu Arasu Cable TV Corporation Ltd is a Government of Tamil Nadu undertaking, incorporated under the Companies Act, 1956 with an aim to provide high quality cable signals to the public through Local Cable Operators at an affordable cost. The service provided by the TACTV Corporation is welfare step taken by the Government in the interest of the public and Cable TV operators. TACTV Corporation is operating in Tamil Nadu with a digital subscriber base of around 2.2 million. TACTV has deployed both Standard Definition (SD) and High Definition (HD) Set Top boxes in the field and providing 300 SD and 56 HD channels and about 400 local channels. It is expected to grow to more than 600+ channels shortly.

Tamil Nadu Arasu Cable TV Corporation (TACTV) intends to invite proposals from reputed companies to supply High Definition Digital Cable TV Set Top Boxes to TACTV and the amount towards the supply should be compensated through right to use landing page advertisement in the digital marketing platform.

3.SCOPE OF WORK

- (a) TACTV intends to supply HD STB to its subscribers. The successful bidder will have to supply TACTV- labelled HD STB. The scope of supply for set top boxes shall include Conditional Access System (CAS). The detailed specifications for set top boxes and CAS server is given in the Annexure-I (A).
- (b) The set top boxes and its accessories including remote control should have a replacement warranty for a period of *one* year from the date of supply of STBs at warehouse and acceptance by TACTV. During the warranty period, the bidder should also provide maintenance support for any other items supplied under the contract free of cost. The supplier should have physical arrangements in every taluk for extending service support.
- (c) The STBs are to be delivered at warehouses designated by TACTV at Chennai, Madurai, Coimbatore and Trichy and tracked as assigned to individual customer by entering SI No. through software application.
- (d) The successful bidder will also supply a programmatic advertising process, real-time bidding (RTB) platform for digital marketing of its air space to TACTV. The platform should at least cover the following functionalities:
 - i. An automated auction that allows advertisers to bid on ad space in TACTV on a cost per mile (CPM) basis.
 - ii. Real-time bidding to allow multiple advertisers to bid on ad inventory in TACTV channels, with the winning ad being displayed within 5 seconds of completion of the bidding process.
 - iii. RTB should allow reverse auction; also
 - iv. Provision with options to put up bids for different marketing channels must be made available. Marketing options must include – landing page ad; in channel ad; Volume +/- ads; watermark ads/ logo ads etc.
- (e) A subscriber management platform (SMP) should also be developed and deployed to ensure that each of the unique id of these set top boxes and the subscriber subscriptions are properly mapped to the actual end-consumers. The details of the consumers' mobile number/email/unique identifier

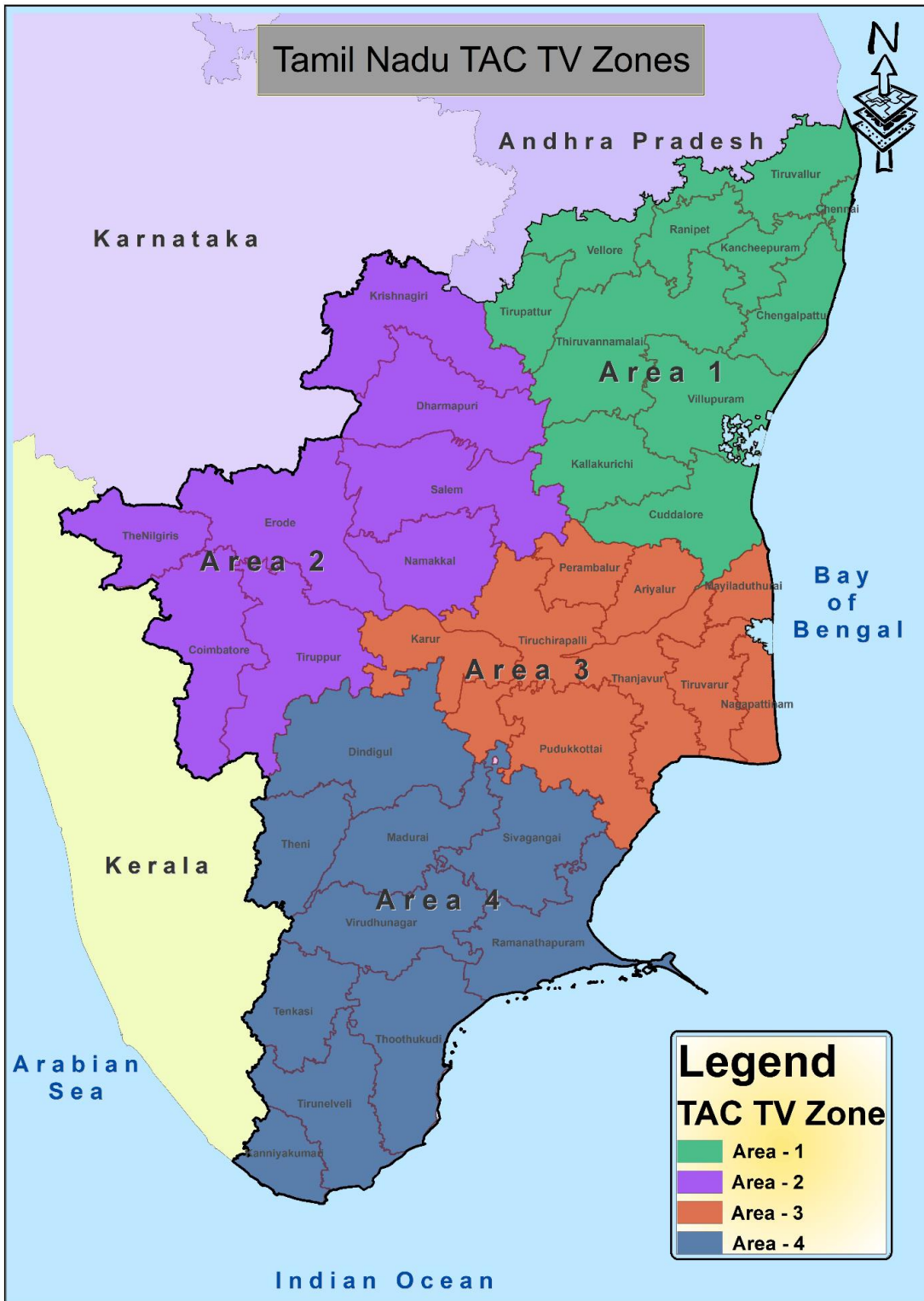
such as Aadhaar number/ration card should also be able to be captured. The app should allow submission of complaints to the LCO/successful bidder & track the complaint till reduction. MSOs/LCOs/DSD should also have login to manage their respective customer, supply & receipt & installation of STBs.

- (f) The 'landing page' advertisement rights will be given to the successful bidder who will be able to take the revenue from the right of the 'landing page' slot; [Which means the set top boxes will be supplied at no monetary cost to TACTV as bid by the bidding. The successful bidder will have the rights to use and shall be entitled for corresponding revenue from advertisement published on landing page for a period of three years. The set top boxes will remain as the property of TACTV.
- (g) The successful bidder must provide a certain number of set top during the first year and second year and 'nil' in 3rd year as mentioned in the schedule at Annexure -XI. All set top boxes and its accessories should carry a comprehensive replacement warranty of one year from date of installation by TACTV at customer premises.
- (h) The supplier should also supply the required CAS system with all required licensing of the set top boxes. The Licensing is perpetual for CAS and STB. After three years, AMC will be paid to the OEM by TACTV if necessary, for any software upgrades only and not for any licensing. After the completion, the bidder should ensure that CAS// STBs including perpetual licensing are handed over to TACTV after the completion of 3 years.
- (i) A real time bid platform and the subscriber management platform (SMP) to be developed and established within two months of signing of the agreement, maintained by the bidder for three years and then handed over to TACTV with complete knowledge transfer and code, after completion of the tender. However the bidder can use the platform for revenue generation of the 'landing page option'.
- (j) The successful bidder must choose any four of the CAS providers, one for each of the 4 regions, listed at Annexure – I(B). The successful bidder will also have to ensure that the OEMs of the CAS systems contractually supply the CAS system directly to TACTV and not to the successful bidder.
- (k) As consideration for supply for Set Top Boxes, Bidder shall be compensated through right to use landing page advertisement in digital marketing platform. Bidder shall raise the invoice for the advertisement revenue on advertisement customer. Further, TACTV shall raise invoice on the Bidder for right to use landing page in digital marketing platform as and when the economic benefits accrue in the form of set-top boxes supplied by the Bidder to TACTV in the respective year.
- (l) The revenue from landing page advertising should be assessed by the bidder (As per legal norms and TRAI regulations) and TACTV will not be responsible for any resulting action arising out of this arrangement.
- (m) A separate Interconnect agreement will be executed by the TACTV with LCOs regarding supply of STBs.

4. Supply of set top box - geographical and CAS structuring

The supply of set top box will be divided into *four* geographical areas each one with a different CAS system. The successful bidder should ensure that proper Planning and Supply of boxes is done independently in each region and across the districts. The CAS system should be chosen from the list of CAS providers provided at Annexure – I(B)

Areas



Area 1	Area 2	Area 3	Area 4
Chennai	Coimbatore	Trichy	Madurai
Kancheepuram	Tiruppur	Ariyalur	Dindigul
Chengalpattu	Erode	Perambalur	Theni
Tiruvallur	Salem	Thanjavur	Virudhunagar
Vellore	Namakkal	Mayiladuthurai	Ramanathapuram
Ranipet	Dharamapuri	Tiruvarur	Tenkasi
Tirupattur	Krishnagiri	Nagapattinam	Thoothukkudi
Tiruvannamalai	The Nilgiris	Pudukottai	Tirunelveli
Villupuram		Karur	Kanniyakumari
Cuddalore			Sivagangai
Kallakurichi			

5. QUALIFICATION CRITERIA:

Clause	Qualification Criteria	Supporting Documents/Remarks
5(a)	<p>i. The single bidder should be a registered company in India and should be in the business of supply or manufacturer of set top boxes for the past three years as on 1.12.2022.</p>	<ul style="list-style-type: none"> • Copy of Incorporation Certificate issued by the Registrar of Companies • Copy of Memorandum and Articles of Association
	<p>ii. In case of Consortium of Bidders:</p> <p>a) Consortium of Bids are allowed with maximum of One partner</p> <p>b) One of the partners shall be designated as Prime Bidder and such partner should be in existence for the past three years as on 1.12.2022. and shall also be Registered in India.</p> <p>c) Each partner of the Consortium should be a Registered Company in India and should be in existence for the past three years as on 1.12.2022</p> <p>d) No partner of the consortium should bid individually or be a partner of another Consortium</p>	<ul style="list-style-type: none"> • The Consortium partners individually should submit the Certificate of Incorporation from the appropriate Authority. • If the Certificate of Incorporation is not in English, then notarized English translation should be submitted. • The original Consortium Agreement should be submitted. The Consortium Agreement shall contain statement that all partners of the consortium shall be liable jointly and severally for the execution of the contract in accordance with the contract terms.
5(b)	<p>The single bidder/ at least anyone of the consortium partner should have minimum 3 years of experience (as on 1.12.2022) in the manufacture or supply of Set Top Boxes.</p>	<ul style="list-style-type: none"> • For Indian operations -Copy of Tax Registration/Factory Licence/GST registration. • In case of foreign manufacturers experience – Official documentation including Tax returns for Set Top box manufacturing business from Tax authorities/Statutory Authorities of the Country of incorporation.

Clause	Qualification Criteria	Supporting Documents/Remarks
5(c)	<p>i. The Prime bidder should have reported an Average Annual Turnover of at least Rs.50 Crores in the last three consecutive financial years 2019-20, 2020-21 & 2021-22.</p> <p>ii. In case of Consortium of Bidders:</p> <p>a) The prime bidder should have reported an average Annual Turnover of at least of Rs.50 Crores i.e. in the last three consecutive financial years 2019-20, 2020-21 & 2021-22</p> <p>b) Consortium partner should have reported an average Annual Turnover of at least Rs.50 Crores in the last three consecutive financial years 2019-20, 2020-21 & 2021-22</p>	<p>(i)The average annual turnover statement duly certified by Chartered Accountant as per Annexure VII.</p> <p>(ii)The Annual Report/ certified copies of Balance Sheet, Profit & Loss statement for the last 3 consecutive financial years</p>
5(d)	<p>The single bidder/ anyone of the consortium partner should have successfully completed supply or manufacture of at least 3 Lakh units of set top boxes in any one of the last three financial years i.e.2019-20, 2020-21 & 2021-22, of which at least 1 Lakh units should have been supplied and seeded in India.</p>	<p>Purchase Orders / Invoice and Completion certificates from the clients. Or evidence for manufacturing.</p>
5(e)	<p>The single bidder/ anyone of the consortium partner should have a full-fledged permanent office in Chennai to provide after sales services.</p>	<p>Chennai Office Address (or) the bidder should give an undertaking to setup office at Chennai within 15 days from the date of issue of LoA if selected</p>
5(f)	<p>The single bidder/anyone of the consortium partner should have full-fledged service centres in Tamil Nadu to provide after sales services.</p>	<p>The list of service centres in Tamilnadu as per Annexure XIII should be enclosed (or) the bidder should give an undertaking to setup service centres in 8 places in Tamil Nadu within 30 days from the date of issue of LoA if selected or at least 2 service centers in each area of operation.</p>

5(g)	<p>The single bidder/consortium partners should have firm tie-up with a leading and reputed CAS providers who are in operation in India for at least 3 years as on 31, March 2022. The CAS provider should have a minimum of 5Lakhsactive installations (as embedded in STB) each in 3 leading Indian Digital Cable Systems/DTH operators.</p>	<p>Tie-up letter, Purchase/work orders/ completion certificate and Certificate from MSO/DTH Operator</p>
5 (h)	<p>The bidder should not stand declared ineligible/ blacklisted/ banned/ debarred by any government Procuring Organization or its Ministry/ Department from participation in its Tender Processes; and/ or Not be convicted (within three years preceding the last date of bid submission) or stand declared ineligible/ suspended/ blacklisted/ banned/ debarred by appropriate agencies of Government in India from participation in Tender Processes of all of its entities, for:</p> <ol style="list-style-type: none"> 1. offences involving moral turpitude in business dealings under the Prevention of Corruption Act, 1988 or any other law; and/or 2. offences under the Indian Penal Code or any other law for causing any loss of life/ limbs/ property or endangering Public Health during the execution of a public procurement contract and/ or suspected to be or of doubtful loyalty to the Country or a National Security risk as determined by appropriate agencies of the Government of India. 	<p>(i)The declaration form as per Annexure VIII should be enclosed. In case of consortium, each partner should submit a separate declaration form.</p> <p>(ii) Any adverse / not satisfactory remarks on the performance of previous supplies will entail disqualification</p> <p>(iii)Further, if the bidder is found blacklisted in India before award of contract by any Government agency, the bid will be rejected.</p>

5(i)	Any Bidder or its consortium partner from a country which shares all and border with India will be eligible to bid in this tender only if the Bidder is registered with the Competent Authority as specified in G.O.Ms.No:343 dated 18.9.2020 issued by Finance(Salaries) Department, Government of Tamil Nadu.(As per details in Annexure-XVIII).	Registration Certificate issued by the Government of Tamil Nadu as specified in G.O.Ms.No:343 dated 18.9.2020 issued by Finance(Salaries) Department, Government of Tamil Nadu. In case of Bidders not from such countries, the Model Certificate for tender as specified in the G.O. should be submitted. (pg.23 of tender)
5(j)	The bidder should not have an association (as a bidder/ partner/ director/ employee in any capacity) of any retired Manager (of Gazetted Rank) or any retired Gazetted Officer of the Central or State Government or its Public Sector Undertakings if such a retired person has not completed the cooling-off period of one year after his retirement. However, this shall not apply if such managers/ officers have obtained a waiver of the cooling-off period from their erstwhile organization of the near relations of executives of Procuring Entity involved in this Tender Process.	Declaration to be enclosed
5(k)	<ol style="list-style-type: none"> 1. The bidder should ensure that all the statutory conditions laid down by the TRAI are met at all times. 2. The bidder should ensure that any mandatory testing, certification, and audit has to be conducted in every year 	Declaration/ undertaking has to be enclosed
5(l)	The four CAS server (duplicated each) for each area along with perpetual licensing should be supplied along with the set top boxes. After three years AMC if required for any software upgrades will be made with OEM.	Declaration /Undertaking to be submitted

6. LANGUAGE OF THE TENDER:

The Tender prepared by the bidder as well as all correspondences and documents relating to the Tender shall be in English language only. If the supporting documents are in a language other than English/Tamil, the notarized translated English version of the documents should also be enclosed. **Tender received without such translation copy will be rejected.**

7. CONSORTIUM AGREEMENT:

- a) A legally valid agreement shall be executed for the consortium binding all the partners in INR 100 Non-Judicial stamp paper. All partners of the consortium shall be liable jointly and severally responsible for the execution of the contract in accordance to the contract terms and it should be explicitly stated in the consortium agreement. The consortium agreement should indicate precisely the role of each partner of the consortium in respect of the contract.
- b) Consortium agreement should be registered in Chennai so as to be legally valid and binding on all partners.
- c) Consortium agreement shall be enclosed with the technical bid. Alternatively, a letter of intent to execute a consortium agreement in the event of a successful bid shall be signed by all the partners and submitted with the bid together with the copy of the proposed agreement. In case of a LoI, the actual reported consortium agreement will have to be provided before issue of work order.
- d) The consortium agreement shall authorize one of the partners of the consortium as Prime Bidder. This authorization shall be evidenced by submitting of Power of Attorney signed by the legally authorized signatories of all the partners.
- e) The Prime Bidder of Consortium shall be authorized to incur liabilities and receive instruction for and on behalf of him and all partners of the consortium and entire execution of the contract including payment shall be done exclusively with the Prime Bidder. All correspondence will only be made with the Prime Bidder.

8. PURCHASE OF TENDER DOCUMENT

- a) The tender document shall be obtained from Tamil Nadu Arasu Cable TV Corporation Limited (TACTV), 807, Anna Salai, 4th Floor, P.T. Lee. Chengalvaraya Naicker Trust Building, Chennai 600 002 on payment of Rs.1000/- payable in the form of Demand Draft drawn on any Indian Nationalized/ Scheduled Commercial Bank in favour of “Tamil Nadu Arasu Cable TV Corporation Ltd” payable at Chennai or it can be downloaded from **www.tactv.in** and **www.tenders.tn.gov.in** at free of cost. For the downloaded tender document, the bidder need not enclose the tender document cost but should give a declaration for not having tampered the Tender document downloaded (as per Annexure IX).
- b) The tender document can be purchased on all working days from 5.1.2023 to 27.01.2023 between 11.00 AM and 03.00 PM.

9.PRE BID MEETING:

There will be a pre-bid meeting on 13.01.2023 at 3.00 P.M. in the Head Office of TACTV, 807, Anna Salai, 4th Floor, P.T. Lee. Chengalvaraya Naicker Trust Building, Chennai 600 002 during which the prospective bidders can get clarifications about the tender. The bidders shall send their queries in writing if any so as to reach TACTV at least two days prior to the pre-bid meeting date. The bidders are advised to check www.tactv.in and www.tenders.tn.gov.in for up-to-date information like change in date / venue etc., of pre-bid meeting as TACTV may not be able to identify and communicate with the prospective bidders at this stage. Non attending of pre-bid meeting is not a disqualification.

10.CLARIFICATION OF TENDER DOCUMENT:

Any discrepancies, omissions, ambiguities or conflicts in the tender document or any doubts as to their meaning and any request for clarification may be sent in writing to “The Managing Director, Tamil Nadu Arasu Cable TV Corporation Limited (TACTV), 807, Anna Salai, 4th Floor, P.T. Lee. Chengalvaraya Naicker Trust Building, Chennai 600 002 or through e-mail to tactv@tactv.in. The Managing Director, will review the same and where information sought is not clearly indicated or specified in the tender documents, will issue a clarifying bulletin to all those who have purchased the tender documents and will also upload such clarification on www.tactv.in and www.tenders.tn.gov.in. The Managing Director will neither make nor be responsible for any oral instructions. Request for clarification should be brought to the notice of the Managing Director, in writing, before 48 hours of the opening of the tender.

11.AMENDMENT OF TENDER DOCUMENT

TACTV whether on its own initiative or as a result of a query, suggestion or comment of an Applicant or a Respondent, may modify the tender document by issuing an addendum or a corrigendum at any time before the opening of the tender. Any such addendum or corrigendum will be communicated through mail to all the bidders who had purchased the tender documents and also will be uploaded on www.tactv.in and www.tenders.tn.gov.in and the same will be binding on all Applicants or Respondents or Bidders, as the case may be.

12.AUTHORISATION OF THE BIDDER

The Tender should be signed by the person who is authorized for the same by the Single Applicant/ Prime Bidder of the Consortium.

13.SUBMISSION OF COVER IN TWO BID SYSTEM:

(a) Every page of the terms and conditions of the tender document should be signed and enclosed with the tender, in token of having accepted the tender conditions. Failing which the tender will be rejected summarily.

Tenders should be submitted in two parts:

- i. Part I will cover technical bid and
 - ii. Part II will cover quantity bid
- (c) Bidders should ensure submission of all documents along with Part-I and Part II proposal as per the Check list given in Annexure -XII.
- (d) Bidders are requested to submit Part I and Part II in a separate sealed cover superscripting as Part I and Part II respectively. These two Parts namely Part I and Part II must be placed in a separate sealed cover superscripted as “Tender for supply of High Definition Set Top Boxes and Digital services for TACTV by providing rights of advertising and consequential revenue at Landing page of TACTV” and addressed to “The Managing Director, Tamil Nadu Arasu Cable TV Corporation Limited (TACTV), 807, Anna Salai, 4th Floor, P.T.Lee. Chengalvaraya Naicker Trust Building, Chennai 600 002., containing the name and address of the Bidder. **Tenders submitted with unsealed cover would summarily be rejected.**
- (e) Tenders should be dropped only in the tender box kept at “Tamil Nadu Arasu Cable TV Corporation Limited (TACTV), 807, Anna Salai, 4th Floor, P.T.Lee. Chengalvaraya Naicker Trust Building, Chennai 600 002 on or before 3.00 PM on 27.01.2023”. Tenders will not be received by hand.
- (f) Alternatively, the tenders can be submitted through registered post so as to reach the above address on or before 3.00 PM on 27.01.2023 tenders received after the specified time will not be considered and TACTV will not be liable or responsible for any postal delays.
- (g) A tender once submitted shall not be permitted to be altered or amended.
- (h) A soft copy of the technical bid in the form of CD should also be submitted along with Part-I of the tender document.

14. EMD amount

- (a) The EMD amount of Rs. 1,25,00,000 (Rupees One Crore and twenty five lakhs only) has to be submitted by way of Demand Draft drawn on any scheduled commercial bank in favour of “Tamil Nadu Arasu Cable TV Corporation Limited, payable at Chennai or in the form of an Irrevocable Bank Guarantee with a validity period of 6 months from the date of publication of tender (i.e.) 5.1.2023 or later date, from any Indian Nationalized/Scheduled Commercial Bank.
- (b) The EMD in any other form will not be accepted. The Earnest Money Deposit will be returned to the unsuccessful bidders.

- (c) The Earnest Money Deposit will be retained in the case of successful bidder and will be adjusted against security deposit. Further, it will not earn any interest and will be dealt with, as provided in terms and conditions of the tender.
- (d) Any request of the bidder, under any circumstances claiming exemption from payment of EMD will be rejected and their Part II Quantity bid offer will not be opened provided that any category of tenderers specifically exempted by Government from the payment of EMD as per Section 14 of Tamilnadu Transparency in Tenders Act 1998.
- (e) EMD is liable to be forfeited in case the bidder fails to execute the contract after submission of the tender or after acceptance of the offer by TACTV or fail to sign the Agreement or to remit the Security Deposit.

15.VALIDITY:

The bid quoted in the Tender should be valid for the acceptance by TACTV for a minimum period of 90 days from the date of opening of the Tender. Change in the bid quantity will not be entertained under any circumstances.

16. Opening and Evaluation of Tenders:

- (a)The tenders received up to 3.00 PM as per the office clock on 27.01.2023 will be taken up for opening. Tenders received after specified date and time will not be accepted. The Tender will be opened by the Managing Director of Tamil Nadu Arasu Cable TV Corporation Limited or by the Person/Committee authorized by him at 03.30 PM on the same day in the presence of the available Bidders/ representatives of the Bidders who choose to be present. The Bidder
- (b)s or their authorized agents are allowed to be present at the time of opening of the tenders.
- (c)The Managing Director of Tamil Nadu Arasu Cable TV Corporation Limited or Person/Committee authorized by him will inform the attested and unattested corrections, before the Bidders and sign all such corrections in the presence of the Bidders. If any of the Bidders or agents not present then, in such cases the Person/Committee will open the tender of the absentee Bidder and take out the unattested corrections and communicate it to them. The absentee Bidder should accept the corrections without any question whatsoever.
- (d)If the date fixed for opening of the tender happens to be a Government holiday, the sealed tenders will be received up to 3.00 PM on the next working day and opened at 03.30 PM on the same day.
- (e)The Technical bid will be evaluated by the Tender Scrutiny Committee constituted by TACTV in terms of the qualification criteria. The committee reserves the right to disqualify any of the tender in case the Committee is not satisfied with the documents furnished, including the past performances.
- (f) Any adverse/not satisfactory remarks on the performance from the clients of previous supplies will entail disqualification of the tender and Offer bids will not be opened.

- (g) The bidders declared as qualified in the Technical Bid by the Tender Scrutiny Committee, will be informed the date of opening of Part II (Quantity bid).
- (h) Sample submission: The Bidder has to submit two samples for the item quoted in tender as per Annexure-XIV.

17. Quantity of set top boxes Offer:

- (a) The Quantity bid should be kept only in the Part II cover.
- (b) The Quantity bid should be prepared as per Annexure-XI
- (c) The taxes should be quoted separately as per the Quantity bid format.
- (d) The quantity finalized for the award of contract shall be kept firm during the period of contract.
- (e) The quantity should be neatly and legibly written both in figures and words.
- (f) In case of discrepancy between the Quantity quoted in words and figures lower of the two shall be considered.
- (g) Part-II bid should not contain any commercial conditions. Variation in the commercial terms and conditions of the tender will not be accepted.

18. Evaluation of Bid:

The bid will be evaluated in accordance to the Tamil Nadu Transparency in Tenders Act 1998 read with the Tamil Nadu Transparency in Tenders Rules 2000, as given below:

- (a) The evaluation for the bid shall be the maximum set top boxes that will be supplied by the bidder.
- (b) The successful bidder will be the bidder who bids for highest 'H1' number of set top boxes offered in two years i.e $C = C1 + C2$ i.e. set top boxes supplied during the first year + Number of HD set top boxes supplied during the second year (As per Annexure-XI). Further, C1 must be at least 80% of C otherwise bid will not be accepted.
- (c) The bid will be evaluated based on the number of set top boxes and in accordance to the Tamil Nadu Transparency in Tenders Act 1998 read with the Tamil Nadu Transparency in Tenders Rules 2000.
- (d) TACTV deserves the right to distribute the order across all suppliers who have bid in the tender.
- (e) TACTV deserves the right to change the year wise quantity quoted by the Bidder within the overall quantity quoted. (As per Annexure-XI)
- (f) TACTV deserves the right to reduce the overall quantity of STB to be supplied and instead seek the equivalent monetary value from the Bidder. For this purpose, the fair value of the STB to be supplied should be indicated in Annexure-XI.

19. BIDDING

The quantity bid should include and must conform to following:

- i. The number of HD STBs to the TACTV and the successful bidder will supply the set top boxes to TACTV with one-year comprehensive replacement warranty.
- ii. The quoted Set Top Boxes should conform to BIS standards as per the Telecom Regulatory Authority of India audit manual and as per specifications mentioned therein.
- iii. TACTV will issue the Letter of Acceptance to the successful bidder, whose bid offer is the Highest.

20. AWARD OF THE CONTRACT

- (a) H1 bidder will be invited for negotiations.
- (b) Upon finalization of negotiated quantity, TACTV will issue the Letter of Acceptance (LoA) to the successful bidder for STBs each year separately. The other items namely RTB, servers, SMP shall be delivered in the first year itself.
- (c) However, TACTV reserves the right to award or distribute the contract to Other Technically Qualified Bidders who are matching the negotiated quantity of H1 bidder, in different areas, in accordance with Clause 31(4) of the Tamil Nadu Transparency in Tenders Act, 1998 read with the Tamil Nadu Transparency in Tenders Rules, 2000.
- (d) Initial contract period for monetization of landing page and supply of STBs will be *three* years which can be extended for another one year upon mutual agreement at the discretion of TACTV.

21. SECURITY DEPOSIT

- (a) On receipt of the Letter of Acceptance from the TACTV, the successful HD STB provider should remit a Security Deposit (SD) of Rs.7.5 crore (Rupees Seven Crore and fifty lakh only) by way of Demand Draft drawn on any scheduled commercial bank in favour of "Tamil Nadu Arasu Cable TV Corporation Limited (or) in the form of an Irrevocable Bank Guarantee with a validity period of 36 months from any Indian Nationalized/Scheduled Commercial Bank, within 7 (Seven) working days from the date of receipt of Letter of Acceptance.
- (b) Security Deposit will be returned only after the end of the contract period.
- (c) In case of non fulfilment of contract, Security Deposit will be forfeited.

22. AGREEMENT

The successful bidder should execute an agreement as may be drawn up to suit the conditions on a

non-judicial stamp paper of value, as prescribed in law on the date of remittance of Security Deposit and shall pay for all stamps and legal expenses incidental thereto. In the event of failure to execute the agreement, within the time prescribed, the SD amount remitted by the successful bidder will be forfeited besides cancelling the bid and TACTV reserves the right to award the same to another successful bidder.

23. ISSUE OF WORK ORDER:

The first year work order will be released within 15 days by TACTV from the date of execution of agreement. The second year work order will be released during the first week of completion of 365 days from the signing of the agreement. The successful bidder should supply items as per the schedule given in clause 24 for each of the two years. The supplier should send a daily report on the supply of the set top boxes.

24. SUPPLY SCHEDULE:

(a) The timeline for each year for completing the supply of quantity for each year (C1 and C2 respectively for each year as per Annexure XI) shall be as follows:

S.No.	Quantity ordered	Timeline
1	10% of the bid quantity	Within 45 days from the date of issue of work order
2	25% of the bid quantity	Within 60 days from the date of issue of work order
3	30% of the bid quantity	Within 90 days from the date of issue of work order
4	35% of the bid quantity	Within 105 days from the date of issue of work order

Delay in supply of STBs beyond this period will attract penalty.

- (b) The supplier shall print TACTV LOGO / HELP DESK LOGO / Holograms/ Serial Number etc. as per the instructions of TACTV on the items (STB+ Remote) delivered.
- (c) The supplier should intimate the readiness of the items to TACTV for benchmark testing at least 7 days in advance before the dispatch.
- (d) Benchmark test will be conducted on all items/samples drawn from the supplies by third party agency nominated by TACTV. The testing will be done a random 2 sample boxes. The testing cost will be borne by TACTV.
- (e) After successful delivery of the items, the supplier must obtain a certificate in the specified format duly certified by the respective consignee and submit it to TACTV. Based on the certificate given by consignee and the copy of test reports, TACTV will issue acceptance letter to the supplier.
- (f) If the supply is not completed within the stipulated time or extended time, TACTV will hold full authority to cancel the tender or take any such action that will be deemed fit to the occasion at the risk and cost of the successful bidder. Such cancellation will entail forfeiture of Security Deposit and losing the bidding page advertising rights.

- (g) In the event of non- performance of the contractual provisions or failure to effect the supply within the stipulated time or during the extended period and if it is found that the contractor, has not fulfilled the contractual obligation with TACTV in any manner during the currency of the contract or also found on later date, TACTV reserves the right to disqualify such supplier to participate in future tenders or black list the firm up to a maximum period of 3 years.
- (h) The successful Bidder should make arrangements to deliver the Set Top Boxes to the registered LCOs of TACTV at the designated TACTV Offices in the Districts.

25. WARRANTY:

- (a) All items (STB+RC) should have a replacement warranty for a period of *one* year from the date of installation of STBs at customer premises against manufacturing defects. During the warranty period, the bidder should also provide maintenance support for all items covered under the contract free of cost.

However the warranty will not extend to failures due to non-manufacturing defects such as water-logging, tampering by unauthorized person, failure due to high voltage or lightning, provided the same is proved beyond doubt.

- (b) The successful bidder shall supply 2% additional quantity as reserve for replacement, which will be kept at the designated warehouses of TACTV.
- (c) The successful bidder should maintain toll free numbers @ one line for every 5 lakh Set Top Box supplied operating 24x7 to register service complaints. Further a mobile app (Android & IoS) shall also be deployed for registration, tracking, resolution of complaints, warranty.
- (d) The call centre shall be located in Chennai and handle complaints in both Tamil & English.

26. OBLIGATION OF TACTV

Testing cost of all items will be borne by TACTV.

The installation of set top boxes will be done by TACTV/ Local Cable Operator (LCO). There shall have no obligation of TACTV towards monetization amount from the landing page and there shall be no freedom for bidder to reduce supply of STBs on this account.

27. PAYMENT TERMS

The successful bidder will monetize of the 'landing page' of TACTV in lieu of supply of STB/SMP/SERVERS/RTB etc under this tender. The successful bidder shall submit weekly report and audited quarterly reports on the amount of monetization done by the Successful bidder.

The successful bidder should submit the audited accounting reports, quarterly, exclusively for this project.

28.PENALTY

- (a) Failure to comply with the stipulated schedule of supply to TACTV will attract a penalty of 0.5% of the average amount monetized during the previous quarter per week of the delay, up to a maximum of INR 15 crores. Any delays that lead to penalty amount beyond the cap of INR 15 crores will result in cancellation of the contract.
- (b) The complaint raised by TACTV/LCO/subscribers has to be rectified as follows:
 - i. LCOs will handle, if the fault is due to software installation and upgradation, troubleshooting like signal connection not proper, power adaptor not working, AV cable faulty.
 - ii. For other faults, Set top boxes will be brought to the service centres of the bidder by LCOs. It has to be resolved within 24 hours by the supplier. If it is not possible to resolve within 24 hours the subscriber will be given spare set top boxes from the 2% reserve available with LCOs.
 - iii. The supplier has to rectify the faults within 96 hours from the time of receipt of the box from the LCO and in default provide a new STB at his own cost.
 - iv. Any failure to comply with the above time lines will attract a penalty of Rs.25 per set top box per day.

29. TERMINATION OF THE TENDER

TACTV reserves right to terminate the Tender at any time during the validity period on account of non-fulfillment of contract on any account .

30. GENERAL CONDITIONS

- (a) Conditional tender in any form will not be accepted.
- (b) TACTV reserves the right to relax, waive, or amend any of the tender conditions.
- (c) The right of final acceptance of the tender is entirely vested with the TACTV and TACTV reserves the right to accept or reject any or all the bidder in part or in totality or to negotiate with any or all the bidders or to withdraw/ cancel/ modify this tender without assigning any reason whatsoever.
- (d) The successful bidder shall not off load either full or part of the work to other bidder.
- (e) If delivery performance of the bidder is not as per the schedule, then the TACTV reserves the right to reallocate the quantity to other bidders. Any additional cost incurred by TACTV due to such reallocation should be borne by the bidder.
- (f) Any notice regarding any problems, to the bidder shall deemed to be sufficiently served, if given in writing at his usual or last known place of business through official e-mail id lastly disclosed to TACTV.

- (g) In the course of discussion and instruction, TACTV may disclose information of confidential and proprietary nature relating to its business model, subscribers, etc. to the bidder. Such information shall be considered as confidential.

31.ARBITRATION

- (a) In case of any dispute in the bid, including interpretation if any on the clauses of the bid or the agreement to be executed, the matter shall be referred by TACTV/bidder to an arbitrator who shall be selected by the bidder from the panel of arbitrators approved by TACTV and communicate the same within 15 days, from the date of receipt of the letter from TACTV along with the panel. If there is no reply from the bidder within 15 days, TACTV shall choose any of the arbitrators from the panel of arbitrators referred to above. The remuneration for the arbitrator and other expenses shall be shared equally by TACTV and the bidder.
- (b) The venue of the Arbitration shall be at the Head office of the TACTV, Chennai. The decision of the Arbitrator shall be final and binding on both the parties to the Arbitration.
- (c) The Arbitrator may with the mutual consent of the parties, extend the time for making the award. The award to be passed by the Arbitrator is enforceable in the Court at Chennai city only.

32.JURISDICTION OF THE COURT

Any dispute arising out of non-fulfillment of any of the terms and conditions of this Tender /Agreement will be subject to the Chennai jurisdiction only. We agree to the above terms and conditions.

Technical Specifications:

ANNEXURE-I (A)

Supply of Conditional Access System, Middleware and distribution of BIS approved Set Top Boxes:

Addressable Systems Requirements

I. Conditional Access System (CAS):

1. The current version of the CAS, in use, should not have any history of hacking. **Explanation:** A written declaration available with the distributor from the CAS vendor, in this regard, shall be construed as compliance of this requirement.
2. The CAS should be DVB compliant with middleware platform and providing the encryption to the value added service.
3. The CAS system should have an uncompromised security features. Bidders must indicate the CAS version and should indicate if there was any security compromise in the last 5 years.
4. The system shall have standards based APIs to transfer purchase information to logistical and billing systems.
5. The CA System shall include an encryption mechanism suitable for DVB-CSA Encryption
6. The CA system shall be capable of encrypting **clear** content provided by various broadcasters to ensure security of content.
7. The CA System shall be capable of providing the above mentioned support for broadcast TV and Video on demand.
8. The offered system shall be the one that has been approved by major content aggregators and major broadcast channels.
9. The system shall have support graphical interface for creating new service offerings.
10. The system shall have a mechanism to test a new service offering before publishing the same.
11. The CA system should generate ECM using the control word supplied by the scrambling control system. The ECM's delivery should support DVB Simulcrypt specifications.
12. The CA System should be capable of delivering authentication EMM and auto refreshing EMMs to the STBs.
13. CAS bidder must also be able to provide solution on VOD, EPG and Middleware.
14. The CA System should have the capability to support at least 1000 bouquets/packages.
15. The software download capability is needed to support STB upgrade, downgrade

targeting single and group STB's.

16. It shall not be possible to alter the data and logs recorded in the CAS and the SMS.
17. The CAS, in use, should not have facility to activate and deactivate a Set Top Box (STB) directly from the CAS terminal. All activation and deactivation of STBs shall be done with the commands of the SMS.
18. The SMS and the CAS should be integrated in such a manner that activation and deactivation of STB happen simultaneously in both the systems.
Explanation: Necessary and sufficient methods shall be put in place so that each activation and deactivation of STBs is reflected in the reports generated from the SMS and the CAS terminals.
19. The CAS OEM shall validate that the CAS has the capability of upgrading STBs over-the-air (OTA), so that the connected STBs can be upgraded in the event of hacking.
20. The fingerprinting should not get invalidated by use of any device or software.
21. The CAS and the SMS should be able to activate or deactivate services or STBs of at least 50% of the subscriber base of the distributor within 24 hours.
22. The STB and Viewing Card (VC) shall be paired from the SMS to ensure security of the content.
23. The CAS and SMS should be capable of individually addressing subscribers, for the purpose of generating the reports, on channel by channel and STB by STB basis.
24. The CAS shall be independently capable of generating, recording, and maintaining logs, for the period of at least immediate preceding two consecutive years, corresponding to each command executed in the CAS including but not limited to activation and deactivation commands issued by the SMS.
25. The CA Company should be capable of upgrading CA software, in case of a known incidence of hacking/piracy within two weeks of reporting during the entire operational life of set top boxes, free of cost.
26. It shall be possible to generate the following reports from the logs of the CAS:
 - i. STB-VC Pairing / De-Pairing
 - ii. STB Activation / De-activation
 - iii. Channels Assignment to STB
 - iv. Report of the activations or the deactivations of a particular channel for a given period
27. The CAS and SMS vendors must have the technical capability in India to maintain the systems on 24x7 basis throughout the year.
28. Upon deactivation of any subscriber from the SMS, all programme/ services shall be denied to that subscriber.
29. It should be possible to preserve unedited data of the CAS and the SMS for at least two years.

30. Some basic functions of the CA include Open/close account, Entitlement , revoke entitlement , OSD, Fingerprint display, conditional blackout, LOC/Unlock STB, parent control , Distributed CA configuration.
31. Additional functions of the CA include program preview control, support pre process scrambling for VOD service, Interface to third party ad insertion services.
32. Some Middleware requirements include Boot splash Advertising, EPG advertising, Mini EPG Advertising, Home Page Video etc.
33. The CAS OEM must support at least 5 different STB Manufacturers.

SET TOP BOX (GENERAL SPECIFICATIONS)

1. The Set Top Box must support at least any one of *five* leading Chipset Manufacturers of International repute with high end memory, advanced security features and graphics processing capability.
2. All STBs should have an Embedded Conditional Access System.
3. All drivers of chip sets to be provided to TACTV.
4. The STB OEM must support at least *five* leading CAS OEM vendors. Tentative list of the same is placed at Annexure – I(B). Necessary supporting documents from CAS OEM vendor is required.
5. The requirement is for supply of DVB-C front end Single Tuner HD STB . It should be with PVR functions.
6. The HD Set top Box must be capable of decoding HDTV /SDTV MPEG2 & MPEG4 H.264 decoding.
7. The STB should be capable of decrypting the Conditional Access messages inserted by the Head-end. All firmware drivers etc to be provided to TACTV.
8. The STB should be capable of doing finger printing. The STB should support both Entitlement Control Message (ECM) and Entitlement Management Message (EMM) based fingerprinting.
9. The STB should be individually addressable from the Head-end.
10. The STB should be able to receive messages from the Head-end.
11. The messaging character length should be minimal 120 characters.
12. There should be provision for global messaging, group messaging and the individual STB messaging.
13. The STB should have forced messaging capability including forced finger printing display.

14. The STB must be compliant to the applicable Bureau of Indian Standards namely IS-16128 of 2013, as amended from time to time, or any other standard approved by any agency authorized by the Central Government.
15. The STB OEM must attach the BIS Certification as documentary evidence.
16. The STBs should be addressable over the air to facilitate OTA software upgrade or through USB interface.
17. There should be a system in place to secure content between decryption and decompression within the STB.
18. The bidder should ensure that there will not be any electrical leakage or electrical shocks.
19. The Bidder should have software support and service centre in Chennai, India for set top boxes to support customization requirements of TACTV over long term .
20. The Bidder shall have authorized service centres in Tamilnadu or shall establish in each district /taluk level or at the specified areas.
21. The bidder should indemnify TACTV and its LCOs against any liabilities arising from copyright/intellectual property rights infringement, royalty issues etc.
22. The Bidder should indemnify TACTV or LCOs against any liabilities arising from nonpayment of royalties to any organization or standards committee.
23. STB should support standard middleware features, by default, such as installation service management, favourite list management, configuration, parental control, language support, software upgrade through OTA, PVR features, Playback functions, EPG functions etc. Subsequently, TACTV shall have an option to add any Middleware in future. Hence, the Chipset proposed must take care of this requirement. Including ‘ System on chip’ support.
24. The fingerprinting should be such that it can identify the unique STB MAC/Sr.No or the unique viewing card (VC) number.
25. The finger printing should appear on all the screens of the STB such as Menu, EPG, etc.
26. The location of the finger printing should be changeable from the head end and should be random on the viewing device.
27. The finger printing should be able to give the numbers of characters as to identify the unique STB and or the VC.
28. The overt finger printing and On Screen Display (OSD) messages of the respective broadcasters should be displayed without any alteration with regard to the time, locations, duration and frequency.
29. The STB should have a provision that OSD is never disabled.
30. The finger printing should not get invalidated by use of any device or software.
31. Advance function support ;
 - a. Pay per view

- b. Program preview control
 - c. Support pre-process scrambling for push VOD service
 - d. Interface for third party ad insertion services
 - e. Support electronics programme guide (Min. 5 days)
 - f. Support Multilanguage subtitle, if present in the video content.
 - g. Support Multiple Audio Tracks , if present in the Video content
 - h. Channel Selection
 - i. Mosaic Function
 - j. Personal Video Recorder (PVR) through USB functionality
 - k. Games
 - l. Box should have diagnostic page to monitor CAS, SI and RF Info.
 - m. Support various Channel Edit functions such as favourite, move, parental lock etc.,
32. Each STB shall be legibly and indelibly marked with TACTV Logo on both sides, and atleast the following information :
- a. Manufacturers name
 - b. Model and Serial No.
 - c. Country of Manufacture
 - d. Input Voltage
 - e. Power Consumption
 - f. Labels for all Input and output (RF, VIDEO, AUDIO, USB, HDMI etc.)
33. The STB should include frequency scanning function to detect the availability of DVB-C Signals and be capable of programme memory, in case of cut off.
34. The scanning function should display the number of channels currently being scanned, display number of services located, name, network ID, signal strength and quality.
35. The STB software's, EPG, CA features must be upgradable over the air. The instant and personalized message prompt must include display & withdrawl of titles , be able to display current software and hardware version stored in the decoders, able to indicate updates are available or not, able to indicate unique serial number and state of STB decoder, able to indicate type of middleware and other resident application version numbers.
36. The Set Top Box shall also be tested as per BIS 13252:2010 (Audio, Video and similar Electronic Apparatus –Safety Requirements) as per “The Gazette of India “notification Part II-Section 3-Sub section (ii) dated October 3, 2012 Vide “Ministry of Communications and Information Technology “order dated 7th September 2012.
37. The time out play for the STB should be minimum of 8 hours (even if the CAS is shut down, the signal should last for 8 hours in the STB)
38. The power supply design of STB may include Transient voltage suppressors as a protection mechanism to minimize damages due to voltage fluctuations.
39. The Power Supply adaptor provided must be of good and durable quality.
40. The Remote Control Unit of the set top box must be able to execute the following functions
- a. Power (on/off)
 - b. Fav (Favorite Channel List)

- c. Mute (Turns on/off the sound temporarily)
- d. Numeric Buttons (inputs numerical value)
- e. TV/Radio
- f. Recall (recalls previous service)
- g. Menu
- h. EPG
- i. Info (displays additional channel information)
- j. Exit (Exits the current menu)
- k. Navigation Button (up, down, right , left)
- l. OK
- m. Volume UP /Volume Down
- n. Appl (Displays the Mutimedia Menu)
- o. GOTO (Sets media play time)
- p. Play (Plays a media file)
- q. Rec (begins to record the program)
- r. Stop (Stops media play)
- s. FF (Fast forward media play)
- t. REW (Rewind a portion during media play)
- u. Audio (Selecting Audio Language)
- v. PVR List (go to PVR Menu directly)
- w. Red, green, yellow, blue buttons to add/delete favorite, Genre, to go to Message menu, Audio Selection language.

41. The following parameters for the Set Top Box shall be given during the time of installation
- a. Starting Frequency
 - b. Network ID
 - c. Symbol Rate
 - d. Boot up Logo
 - e. Watermark (along with the Location)
 - f. Background Channel Updation
 - g. Which LCN Number should come first after boot up.
42. The Forced Message sent to STB must stay when the Box is on and also when the Box is switched Off and on again with in a particular time duration.
43. The Finger Print sent to the STB must stay when the Box is on and also when the Box is Switched off and on again with in a particular time duration.
44. Schematic diagram of PCB layout of STB should be submitted with Part-I Technical Bid.
45. The Software encryptions key that allows to update machine software to be provided.
46. Source code, Bootloader & firmware code, All drivers of the modules like flash, demux, tuner, IR, remote and any other modules used in the box, Any middleware code that interacts with driver code and Conditional access APIs, APPLICATION SOURCE CODE, the entire SDK with all source code, Libraries etc to be provided.

I. MPEG 4 HD Digital Set Top Box:

Features:

- DVB –C Tuner
- It will be 8/64MB HD box
- HD Set Top Box shall also have all the features of SD Box
- Multi format video decoder capable of HD MPEG2/ MPEG AVC/H.264 decoding
- Should support all profiles and levels of video decoding as per ISO/IEC 14496-10
- Support USB 2.0 PVR, MPEG2, MPEG4, VC-1, MP3, AAC, Digital Photos JPEG, GIF, TIF/TIFF, BMP, PNG etc
- Should be able to decode MPEG 1, MPEG 4 Stereo, 5.1 , Dolby Digital Audio
- Should be capable of supporting 576 i, 576 p. 1080 I and 720 P formats to allow optimum picture performance with standard TV's and HDTV's
- Should be able to store and support 1000 Channels
- It should be possible to choose LCN from 0 to 9999.
- The chipset (System on a Chip) must be High Performance, Programmable, High speed, Central Processing Unit Cores for Audio/Video and Application Systems, fully compliant with DVB-C & ITU J83 /AC Specifications supporting from 16 to 256 QAM, Multistandard Video decoding, Multistandard Audio Decoding, Programmable Output, Peripheral Interfaces, Advanced security system, Low Power consumption with standby control modes.
- Should support PVR Control
- Software upgrade through USB & OTA
- Shall support real time scrambling of VOD Services
- HDMI connector for connecting High Definition Television
- Digital Audio Output to connect to high end audio equipment's
- USB 2.0 port connectivity for external mass storage devices through USB.
- Remote Control : IR (38 K.Hz) , 2 x 1.5 V AAA
- Power Consumption in St.by mode < 1 W

Chip Processor & Memory

- Flash Memory : 8MB
- System Memory 64MB
- With Advanced Security Features

S.No.	Parameters	HD set top boxes
	Technical Requirements	
1	BIS Standard	The Digital Set Top Box must comply to BIS Standard IS 16128 “ Set Top Box for MPEG 4 Digital Cable TV Services”
2	Demodulation and Forward Error Correction (FEC) decoding	Capability to demodulate and decode signals channel coded and modulated in accordance with the DVB-C standard (SI No.1 of Annex B)
3	Decompression/decoding video	The STB should be capable of decompressing and decoding High Definition Television (HDTV) video signals compressed and coded in accordance with SI No.7 of Annexure B a) It should be capable of decoding both 1080i and 720p HDTV formats.
4	Decompression/decoding audio	Capability to either: a) Decompress, decode according to metadata and down-mix to stereo for Multichannel audio, all of the following formats: 1) MPEG-1 Layer 2 2) E-AC-3 (SI No. 21 of Annex B) 3) MPEG-4 HE AAC stereo b) Pass through all of the following multi - channel formats: 1) E-AC-3 (SI No. 21 of Annex B) 2) AC-3 (SI No. 21 of Annex B) 3) MPEG-4 HE AAC 5.1 4) MPEG2 5.1 5) DTS (Digital Theatre Sound) c) Transcode all the following input formats to AC-3: 1) E-AC-3 (SI No. 21 of Annex B) 2) MPEG-4 HE AAC
5	Data Services	Capability to receive and process data streams (SI No. 11 and SI No.12 of Annex B)
6	Subtitle streams	Capability to receive and process subtitle steams (SI No. 18 of Annex B)
7	Service de-multiplexing	Capability to receive and process Service Information (SI (SI No. 16 and SI No.17 of Annex B)

S.No.	Parameters	HD set top boxes
8	Conditional Access/scrambling	a) Capability to descramble services scrambled in accordance with DVB-CSA (SI No. 13 of Annex B) including decryption of signals which have been simulcrypt (SI.No.19 and SI No.20 of Annex B) b) STB may have provision for smart card operation. If smart card is provided, it shall be in accordance with IS 14202 (Parts 1,2 and 3)
9	Upstream Communication	-
	Interfaces/connectors	a) RF Input: 75 Ω Impedance, Female Connector (SI No 22 of Annex B) b) Loop Out : IEC Female c) Composite Video - RCA type : Yellow d) Output Audio: e) RCA type: Stereo/mono f) RCA type: L-White, R-Red g) HDMI (SI No.23 of Annex B) h) USB 2.0 Ports i) Digital Audio SPDIF 1) Optical j) Connectors: 1) HDMI 2) USB
10	Software updation mechanism	(SI No.15 of Annex B)
11	PVR Functionally	This shall be provided for enabling the recording of live AV programs to the STB hard drive/USB Storage media and the ability to play back video with VCR like Controls.

Performance requirements		
12	Electrical Specifications: a) Input voltage range b) Frequency	a) 90-270 V a.c b) 50 Hz \pm 2 percent
13	RF Characteristics to be supported by the receiver: a) System b) Modulation c) RF Carrier signal Level d) Carrier level difference between distributed TV channels (47-862 MHz range) e) Amplitude response within a TV Channel. f) Lowest carrier to interference ratio g) Cross modulation h) Digital video RF characteristics i) Carrier /Noise (C/N) ratio	a) As per DVB-C standard. b) 32 QAM, 64 QAM, 128QAM, 256QAM c) 47 dB μ V Min for 64QAM 67 dB μ V Max for 64 QAM (4.10.3 of IS 13420 (part-1)) d) 3 dB Max for 64 QAM for adjacent channel 13dB Max for 64QAM for adjacent channel to AM VSB channel e) Variation (pp): 8 dB Max Slope of variation : 1.5 dB/MHz Max (4.2 of IS 13420 (part 1)) f) 35 dB Min for 64 QAM g) $>46 + 10 \lg (N-1)$ where N= No.of channels h) Constellation of 16QAM, 64 QAM and 256 QAM are desirable. Other constellations (32QAM and 128QAM) may also be used. The constellation used shall be automatically detected. i) 31 dB Min for 64 QAM
14	Channel tuner performance characteristics: a) RF input level b) Input frequency range c) RF input channel bandwidth d) RF Input impedance e) RF input return loss f) Frequency assignment download	a) Same as mentioned in SI.No.ii b) 47-862 MHz c) 7 MHz for VHF and 8 MHz for UHF d) 75 Ω e) 6 dB Min [4.1.1 of IS 14231 (Part 3)] f) Optional
15	Remote control	Mandatory
16	Operating ambient temperature range	5° to 50° C

17	Operating humidity range	5 percent to 95 percent (non-condensing)
18	Finger Printing	Mandatory but service provider free to choose mechanism
	Other Requirements	
19	General Requirements	<p>a) The STB shall support reception and processing of DVB-C (as laid in SI No. 1 of Annex B) compliant digitally modulated and encrypted signal, as per DVB-CSA (as laid in SI No. 13 of Annex B), received via a cable TV network in accordance with IS 13420 (Part 1). For interactive applications, STB may have the provision of processing signal on the return path, if the return path is provided by the service provider in accordance with IS 14231 (Part 8).The Manufacturer shall declare the capability of the STB and its interoperability, if any, on various cable TV networks in the instruction manual to be supplied with the STB.</p> <p>b) The manufacturer shall ensure compatibility/ interfacing with consumer electronic equipment(s) such as televisions audio and video systems, VCR's etc in the country.</p>
20	Safety Requirements	The safety requirements of Receiver shall conform to IS 13252
21	Electromagnetic Compatibility (EMC) Requirements	The EMC requirement of the STB shall conform to IS 6873 (Part 3)

The details for Boot up logo; Water mark;NIT Frequency for the STB will be provided to the bidder.

ANNEXURE I (B)

CAS PROVIDERS

- 1.** NDS-Cisco
- 2.** Nagra-Kudelski
- 3.** IRDETO;
- 4.** CONAX - Kudelski
- 5.** Verimatrix
- 6.** iCAS-Bydesign
- 7.** Crytogaurd
- 8.** Arris-Latens
- 9.** SAFEVIEW;
- 10.** LRIPL-Only1
- 11.** Logic Eastern-OneCAS
- 12.** NAGRAVISION;
- 13.** Security TV/Cryptguard
- 14.** Ridsys

And any other certified Indian CAS provider

COMPLIANCE TO THE TECHNICAL SPECIFICATIONS

The bidders should specify the specifications of set top boxes to be supplied. The Compliance report should be enclosed along with technical bid. Specification of offered equipment's is to be written clearly in the column of "OFFERED SPECIFICATIONS" in the table given below. Offers without clear specifications on the said column will be treated as non-responsive and rejected.

S.No.	Specifications	OFFERED SPECIFICATIONS (Specify exact specification)
1) Addressable Systems Requirements		
I. Conditional Access System (CAS) and Subscriber Management System (SMS):		
	<ol style="list-style-type: none"> 1. The current version of the CAS, in use, should not have any history of hacking. Explanation: A written declaration available with the distributor from the CAS vendor, in this regard, shall be construed as compliance of this requirement. 2. The CAS should be DVB compliant with middleware platform and providing the encryption to the value added service. 3. The CAS system should have an uncompromised security features. Bidders must indicate the CAS version and should indicate if there was any security compromise in the last 5 years. 4. The system shall have standards based APIs to transfer purchase information to logistical and billing systems. 5. The CA System shall include an encryption mechanism suitable for DVB-CSA Encryption 	

	<ol style="list-style-type: none"> 6. The CA system shall be capable of encrypting clear content provided by various broadcasters to ensure security of content. 7. The CA System shall be capable of providing the above mentioned support for broadcast TV and Video on demand. 8. The offered system shall be the one that has been approved by major content aggregators and major broadcast channels. 9. The system shall have support graphical interface for creating new service offerings. 10. The system shall have a mechanism to test a new service offering before publishing the same. 11. The CA system should generate ECM using the control word supplied by the scrambling control system. The ECM's delivery should support DVB Simulcrypt specifications. 12. The CA System should be capable of delivering authentication EMM and auto refreshing EMMs to the STBs. 13. CAS bidder must also be able to provide solution on VOD, EPG and Middleware. 14. The CA System should have the capability to support at least 1000 bouquets/packages. 15. The software download capability is needed to support STB upgrade, downgrade targeting single and group STB's. 16. It shall not be possible to alter the data and logs recorded in the CAS and the SMS. 17. The CAS, in use, should not have facility to activate and deactivate a Set Top Box (STB) directly from the CAS terminal. All activation and deactivation of STBs shall be done with the commands of the SMS. 	
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<p>18. The SMS and the CAS should be integrated in such a manner that activation and deactivation of STB happens simultaneously in both the systems.</p> <p>Explanation: Necessary and sufficient methods shall be put in place so that each activation and deactivation of STBs is reflected in the reports generated from the SMS and the CAS terminals.</p> <p>19. The CAS OEM shall validate that the CAS has the capability of upgrading STBs over-the-air (OTA), so that the connected STBs can be upgraded in the event of hacking.</p> <p>20. The fingerprinting should not get invalidated by use of any device or software.</p> <p>21. The CAS and the SMS should be able to activate or deactivate services or STBs of at least 50% of the subscriber base of the distributor within 24 hours.</p> <p>22. The STB and Viewing Card (VC) shall be paired from the SMS to ensure security of the content.</p> <p>23. The CAS and SMS should be capable of individually addressing subscribers, for the purpose of generating the reports, on channel by channel and STB by STB basis.</p> <p>24. The CAS shall be independently capable of generating, recording, and maintaining logs, for the period of at least immediate preceding two consecutive years, corresponding to each command executed in the CAS including but not limited to activation and deactivation commands issued by the SMS.</p> <p>25. The CA Company should be capable of upgrading CA software, in case of a known incidence of hacking/piracy within two weeks of reporting during the entire operational life of set top boxes, free of cost.</p> <p>26. It shall be possible to generate the following reports from the logs of the CAS:</p>	
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- i. STB-VC Pairing / De-Pairing
- ii. STB Activation / De-activation
- iii. Channels Assignment to STB
- iv. Report of the activations or the deactivations of a particular channel for a given period

27. The CAS and SMS vendors must have the technical capability in India to maintain the systems on 24x7 basis throughout the year.

28. Upon deactivation of any subscriber from the SMS, all programme/ services shall be denied to that subscriber.

29. It should be possible to preserve unedited data of the CAS and the SMS for at least two years.

30. Some basic functions of the CA include Open/close account, Entitlement , revoke entitlement , OSD, Fingerprint display, conditional blackout, LOC/Unlock STB, parent control , Distributed CA configuration.

31. Additional functions of the CA include program preview control, support preprocess scrambling for VOD service, Interface to third party ad insertion services.

32. Some Middleware requirements include Boot splash Advertising, EPG advertising, Mini EPG Advertising, Home Page Video etc.

33. The CAS OEM must support at least 5 different STB Manufacturers.

4) Set Top Box (STB):

I. General

1. The Set Top Box must support at least any one of *five* leading Chipset Manufacturers of International repute with high end memory, advanced security features and graphics processing capability.
2. All STBs should have an Embedded Conditional Access System.
3. All drivers of chip sets to be provided to TACTV.
4. The STB OEM must support at least *five* leading CAS OEM vendors. Tentative list of the same is placed at Annexure – I(B). Necessary supporting documents from CAS OEM vendor is required.
5. The requirement is for supply of DVB-C front end Single Tuner HD STB . It should be with PVR functions.
6. The HD Set top Box must be capable of decoding HDTV /SDTV MPEG2 & MPEG4 H.264 decoding.
7. The STB should be capable of decrypting the Conditional Access messages inserted by the Head-end. All firmware drivers etc to be provided to TACTV.
8. The STB should be capable of doing finger printing. The STB should support both Entitlement Control Message (ECM) and Entitlement Management Message (EMM) based fingerprinting.
9. The STB should be individually addressable from the Head-end.
10. The STB should be able to receive messages from the Head-end.
11. The messaging character length should be minimal 120 characters.
12. There should be provision for global messaging, group messaging and the individual STB messaging.
13. The STB should have forced messaging capability including forced finger printing display.

14. The STB must be compliant to the applicable Bureau of Indian Standards namely IS-16128 of 2013, as amended from time to time, or any other standard approved by any agency authorized by the Central Government.
15. The STB OEM must attach the BIS Certification as a documentary evidence.
16. The STBs should be addressable over the air to facilitate OTA software upgrade.
17. There should be a system in place to secure content between decryption and decompression within the STB.
18. The bidder should ensure that there will not be any electrical leakage or electrical shocks.
19. The Bidder should have software support and service centre in India for set top boxes to support customization requirements of TACTV over long term
20. The Bidder shall have authorized service centres in Tamilnadu or shall establish in each district /taluk level.
21. The bidder should indemnify TACTV and its LCOs against any liabilities arising from copyright/intellectual property rights infringement, royalty issues etc.
22. The Bidder should indemnify TACTV or LCOs against any liabilities arising from nonpayment of royalties to any organization or standards committee.
23. STB should support middleware features
24. The fingerprinting should be such that it can identify the unique STB MAC/Sr.No or the unique viewing card (VC)number.
25. The finger printing should appear on all the screens of theSTB such as Menu, EPG, etc.
26. The location of the finger printing should be changeable from the head end and should be random on the viewing device.

- | | |
|---|--|
| <p>27. The finger printing should be able to give the numbers of characters as to identify the unique STB and or the VC.</p> <p>28. The overt finger printing and On screen display (OSD) messages of the respective broadcasters should be displayed without any alteration with regard to the time, locations, duration and frequency.</p> <p>29. The STB should have a provision that OSD is neverdisabled.</p> <p>30. The finger printing should not get invalidated by use of any device or software.</p> <p>31. Advance function support ;</p> <ul style="list-style-type: none"> a. Pay per view b. Program preview control c. Support pre-process scrambling for push VODservice d. Interface for third party ad insertion services e. Support electronics programme guide (Min. 5 days) f. Support Multilanguage subtitle, if present in thevideo content. g. Support Multiple Audio Tracks , if present in theVideo content h. Channel Selection i. Mosaic Function j. Personal Video Recorder (PVR) through USBfunctionality k. Games l. Box should have diagnostic page to monitor CAS, SIand RF Info. | |
|---|--|

	II. MPEG 4 Basic SD Set Top Box:	
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Specifications	Offered Specifications (Specify exact specification)
<p>MPEG 4 HD Digital Set Top Box:</p> <p>Features:</p> <ul style="list-style-type: none"> • DVB –C Tuner • It will be 8/64MB HD box • HD Set Top Box shall also have all the features of SD Box • Multi format video decoder capable of HD MPEG2/ MPEG AVC/H.264 decoding • Should support all profiles and levels of video decoding as per ISO/IEC 14496-10 • Support USB 2.0 PVR, MPEG2, MPEG4, VC-1, MP3, AAC, Digital Photos JPEG, GIF, TIF/TIFF, BMP, PNG etc • Should be able to decode MPEG 1, MPEG 4 Stereo, 5.1 , Dolby Digital Audio • Should be capable of supporting 576 i, 576 p, 1080 I and 720 P formats to allow optimum picture performance with standard TV’s and HDTV’s • Should be able to store and support 1000 Channels • It should be possible to choose LCN from 0 to 9999. <p>The chipset (System on a Chip) must be High Performance, Programmable, High speed, Central Processing Unit Cores for Audio/Video and Application Systems, fully compliant with DVB-C & ITU J83 /AC Specifications supporting from 16 to 256 QAM, Multistandard Video decoding, Multistandard Audio Decoding, Programmable Output, Peripheral Interfaces, Advanced security system, Low Power consumption with standby control modes.</p> <p>Should support PVR Control</p> <ul style="list-style-type: none"> • Software upgrade through USB & OTA • Shall support real time scrambling of VOD Services • HDMI connector for connecting High Definition Television • Digital Audio Output to connect to high end audio equipment’s • USB 2.0 port connectivity for external mass storage devices through USB. • Remote Control : IR (38 K.Hz) , 2 x 1.5 V AAA • Power Consumption in St.by mode < 1 W <p>Chip Processor & Memory</p> <ul style="list-style-type: none"> • Flash Memory : 8MB • System Memory 64MB <p>With Advanced Security Features</p>	

S.No.	Parameters	HD set top boxes
	Technical Requirements	
1	BIS Standard	The Digital Set Top Box must comply to BIS Standard IS 16128 “ Set Top Box for MPEG 4 Digital Cable TV Services”
2	Demodulation and Forward Error Correction (FEC) decoding	Capability to demodulate and decode signals channel coded and modulated in accordance with the DVB-C standard (SI No.1 of Annex B)
3	Decompression/decoding video	The STB should be capable of decompressing and decoding High Definition Television (HDTV) video signals compressed and coded in accordance with SI No.7 of Annex B It should be capable of decoding both 1080i and 720p HDTV formats.
4	Decompression/decoding audio	Capability to either: a) Decompress, decode according to metadata and down-mix to stereo for Multichannel audio, all of the following formats: <ol style="list-style-type: none"> 1. MPEG-1 Layer 2 2. E-AC-3 (SI No. 21 of Annex B) 3. MPEG-4 HE AAC stereo b) Pass through all of the following multi - channel formats: <ol style="list-style-type: none"> 1.E-AC-3 (SI No. 21 of Annex B) 2.AC-3 (SI No. 21 of Annex B) 3. MPEG-4 HE AAC 5.1 4.MPEG2 5.1 5.DTS (Digital theatre Sound) c) Transcode all the following input formats to AC-3: <ol style="list-style-type: none"> 1.E-AC-3 (SI No. 21 of Annex B) 2.MPEG-4 HE AAC

S.No.	Parameters	HD set top boxes
5	Data Services	Capability to receive and process data streams (SI No. 11 and SI No.12 of Annex B)
6	Subtitle streams	Capability to receive and process subtitle steams (SI No. 18 of Annex B)
7	Service de-multiplexing	Capability to receive and process Service Information (SI (SI No. 16 and SI No.17 of Annex B)
8	Conditional Access/scrambling	a. Capability to descramble services scrambled in accordance with DVB-CSA (SI No. 13 of Annex B) including decryption of signals which have been simulcrypt (SI.No.19 and SI No.20 of Annex B) b. STB may have provision for smart card operation. If smart card is provided, it shall be in accordance with IS 14202 (Parts 1,2 and 3)
9	Upstream Communication	-
10	Interfaces/connectors	a) RF Input: 75 Ω Impedance, Female Connector (SI No 22 of Annex B) b) <i>Loop Out : IEC Female</i> c) Composite Video - RCA type : Yellow d) Output Audio: e) RCA type: Stereo/mono f) RCA type: L-White, R-Red g) HDMI (SI No.23 of Annex B) h) USB 2.0 Ports i) Digital Audio SPDIF - Optical j) Connectors: 1. HDMI 2. USB
11	Software updation mechanism	(SI No.15 of Annex B)
12	PVR Functionally	This shall be provided for enabling the recording of live A/V programs to the STB hard drive/USB Storage media and the ability to play back video with VCR like Controls.

	Performance requirements	
1	Electrical Specifications: a) Input voltage range b) Frequency	a) 90-270 V a.c b) 50 Hz \pm 2 percent
2	RF Characteristics to be supported by the receiver: a) System b) Modulation c) RF Carrier signal Level d) Carrier level difference between distributed TV channels (47 - 862 MHz range) e) Amplitude response within a TV Channel. f) Lowest carrier to interference ratio g) Cross modulation h) Digital video RF characteristics i) Carrier /Noise (C/N) ratio	a) As per DVB-C standard. b) 32 QAM, 64 QAM, 128QAM, 256QAM c) 47 dB μ V Min for 64QAM 67 dB μ V Max for 64 QAM (4.10.3 of IS 13420 (part-1)) d) 3 dB Max for 64 QAM for adjacent channel 13dB Max for 64QAM for adjacent channel to AM VSB channel e) Variation (pp): 8 dB Max f) Slope of variation : 1.5 dB/MHz Max (4.2 of IS 13420 (part 1)) g) 35 dB Min for 64 QAM h) $>46 + 10 \lg (N-1)$ where N= No.of channels i) Constellation of 16QAM, 64 QAM and 256 QAM are desirable. Other constellations (32QAM and 128QAM) may also be used. The constellation used shall be automatically detected. j) 31 dB Min for 64 QAM

3	Channel tuner performance characteristics: a) RF input level b) Input frequency range c) RF input channel bandwidth d) RF Input impedance e) RF input return loss f) Frequency assignment download	a) Same as mentioned in SI.No.2 b) 47-862 MHz c) 7 MHz for VHF and 8 MHz for UHF d) 75 Ω e) 6 dB Min [4.1.1 of IS 14231 (Part 3)] f) Optional
4	Remote control	Mandatory
5	Operating ambient temperature range	5° to 50° C
6	Operating humidity range	5 percent to 95 percent (non-condensing)
7	Finger Printing	Mandatory but service provider free to choose mechanism

Other Requirements		
1	General Requirements	<p>a. The STB shall support reception and processing of DVB-C (as laid in SI No. 1 of Annex B) compliant digitally modulated and encrypted signal, as per DVB-CSA (as laid in SI No. 13 of Annex B), received via a cable TV network in accordance with IS 13420 (Part 1). For interactive applications, STB may have the provision of processing signal on the return path, if the return path is provided by the service provider in accordance with IS 14231 (Part 8).The Manufacturer shall declare the capability of the STB and its interoperability, if any, on various cable TV networks in the instruction manual to be supplied with the STB.</p> <p>b. The manufacturer shall ensure compatibility/interfaces with consumer electronic equipment(s) such as televisions audio and video systems, VCR's etc in the country.</p>

2	Safety Requirements	The safety requirements of Receiver shall conform to IS 13252
3	Electromagnetic Compatibility (EMC) Requirements	The EMC requirement of the STB shall conform to IS 6873 (Part 3)
4	Specification of the firmware software	

LIST OF REFERRED INDIAN STANDARDS

S.No.	Title
6873 (Part 3) : 1999	Limits and methods of measurement of radio disturbance characteristics: Part 3 Sound and television broadcast receivers and associated equipment (first revision)
9000	Basic environmental testing procedures for electronic and electrical items
(Part 2/ Sec 4) : 1977	Cold test for heat dissipating items with gradual change of temperature
(Part 3/Sec 5) : 1977	Dry heat test for heat dissipating items with gradual change of temperature
(Part 5/Sec 1) : 1981	Damp heat cyclic test, Section 1 16+8h cycle
(Part 7/Sec 2) : 1979	Bump
13252 : 1992	Safety of information technology equipment including electrical business equipment
13420 (Part 1) : 2002	Cabled distribution systems: Part 1 Methods of measurement and system performance.
14202	Identification cards – Integrated circuits) – Cards with contacts
(Part 1) : 2003	Physical characteristics (first revision)
(Part 2) : 2003	Dimensions and locations of the contacts (first revision)
(Part 3) : 2002	Electronic signals and transmission protocols
14231	Cabled distribution system for television and sound signals
(Part 3) : 1995	Active coaxial wideband distribution components
(Part 8) : 2002	System performance of return path

ANNEXURE-IV

LIST OF REFERRED INTERNATIONAL STANDARDS

S.No.	Reference No.	Title
1	EN 300 429 Ver. 1.2.1	Framing structure channel coding and modulation for cable systems (DVB-C)
2	EN 302 769 Ver. 1.2.1	Framing structure channel coding and modulations for a second generation digital transmission system for cable systems (DVB-C2)
3	TS 102 991 Ver. 1.2.1	DVB-C2 Implementation guidelines
4	ISO/IEC 13818-1	Information technology – Generic coding of moving pictures and associated audio information Part 1 : System (MPEG 2)
5	ISO/IEC 13818-2 : 2000	Information technology – Generic coding of moving pictures and associated audio information Part 2 Video Coding
6	ISO/IEC 14496-3 : 2005	Information technology – Coding of audio-visual objects: Part 3 Audio
7	ISO/IEC 14496-10 : 2008	Information technology – Coding of audio-visual objects: Part 10 Advanced Video Coding (MPEG-4 Part 10 AVC)
8	ISO/IEC 11172-3 : 1993	Information technology – Coding of moving pictures and associated audio for digital storage media at up to about 1.5 Mbit/s: Part 3 Audio: MPEG-1 Audio Layer II
9	ISO/IEC 7816 (all Parts)	Specifications for smart cards
10	ETSI TS 101 154 Ver. 1.10.1	Digital Video Broadcasting (DVB) Specification for the use of Video and Audio Coding in Broadcasting Applications based on the MPEG-2 Transport Stream.
11	ETSI EN 301 192 Ver. 1.4.2	Digital Video Broadcasting (DVB) DVB specification for data broadcasting
12	TR 101 202 Ver. 1.2.1	Digital Video Broadcasting (DVB) Implementation guidelines for Data Broadcasting
13	EN 50221 Ver. 1	Common Interface Specification for Conditional Access and other Digital Video Broadcasting Decoder Applications and ETR 289 Ver. 1 Support for use of scrambling and Conditional Access (CA) within digital broadcasting systems
14	TS 101 699 Ver. 1.1.1	Digital Video Broadcasting (DVB) Extensions to the Common Interface Specification
15	TS 102 006 Ver. 1.3.2	Digital Video Broadcasting (DVB) Specification for System Software Update in DVB Systems.
16	ETSI EN 300 468 Ver. 1.12.1	Specifications for Service Information (SI) in DVB systems.

S.No.	Reference No.	Title
17	TS 101 211 Ver. 1.10.1	Guidelines on implementation and usage of Service Information (SI) in DVB systems.
18	ETSI EN 300 743 Ver. 1.3.1	Subtitling Systems
19	TS 101 197 Ver. 1.2.1	DVB Simulcrypt: Head-end architecture and synchronization
20	TS 103 197 Ver. 1.5.1	Head-end implementation of DVB Simulcrypt
21	ETSI TS 102 366 Ver. 1.2.1	Digital Audio Compression (AC-3, Enhanced AC-3) Standard
22	IEC 60169-24	Radio-frequency connectors – Part 24: Radio-frequency coaxial connectors with screw coupling, typically for use in 75 ohm cable distribution systems (Type F)
23	ETSI TS 102 201	Interfaces for DVB Integrated Receiver Decoder (DVB-IRD)
24	ITU-R BT 470-7	Conventional analogue television systems.
25	ETSI TS 103 605	Interoperability of STBs

DETAILS OF THE TENDERER

1.	Name of the Tenderer	
2.	Registered Office Address	
3.	Telephone Number	
4.	Fax	
5.	Email	
6.	Website, if any	
7.	Contact Person	Name: Designation: Phone: Mobile: Email
8.	Date of Incorporation	
9.	Legal Status	Proprietorship/partnership/Pvt. Limited/Public Limited/others(Pl. mention)
10.	Addresses of Offices located in Tamilnadu along with phone number, fax and email	
11.	Brief profile of the Tenderer	
12.	Registration Number as a firm under GST	
13.	Service Tax	
14.	PAN Number	

ANNEXURE-VI

PART-I

Date: _____

From,
Name:
Address:
Ph:
Fax:
E-mail:

To,
The Managing Director,
Tamilnadu Arasu Cable TV Corporation Limited (TACTV),
No: 807, Anna Salai, 4th Floor,
P.T.Lee. Chengalvarayan Trust Building,
Chennai 600 002
Sir,

Sub: Tender for supply of High Definition Set Top Boxes and Digital services for TACTV by providing rights of advertising and consequential revenue at Landing page of TACTV

Ref: Your Tender Notice Dt.

With reference to your tender notice, we submit herewith our sealed Tender for supply of High Definition Set Top Boxes and Digital services for TACTV by providing rights of advertising and consequential revenue at Landing page of TACTV

We enclose the following documents:

- 1) Tender conditions duly signed in each page
- 2) Demand Draft no. /BG No: _____ Rs. 1,25,00,000 (Rupees One crore twenty five lakhs only) towards Earnest Money Deposit.
- 3) Authorization letter from the Agency for the person to sign the tender.
- 4) Annexure-VI (Part I covering letter)
- 5) Details of the Tenderer (as per Annexure-V)
- 6) Average annual turnover statement duly certified by a Chartered Accountant (as per Annexure-VII).

- 7) Declaration for not having black listed either by TACTV or by any other Govt. agencies (as per Annexure-VIII).
- 8) Declaration for not having tampered the Tender documents downloaded from the websites www.tactv.in and www.tenders.tn.gov.in (Annexure-IX)
- 9) The copy of certificate of incorporation/registration.
- 10) Copy of Memorandum and Articles of Association.
- 11) Copy of Registered Partnership deed, in case of Partnership Firm.
- 12) Purchase Orders issued by the clients
- 13) Chennai Office Address or Declaration
- 14) The Annual Report / certified copies of Balance Sheet, Profit & Loss statement along with schedules for the last 3 consecutive financial years i.e FY 2019-20,2020-21 & 2021-22
- 15) Land Border – Exemption certificate
- 16) Declaration for Bidder not having association
- 17) Copy of Registration certificate as a firm under GST.
- 18) Copy of PAN allotment Certificate/ PANCARD issued by Income Tax Department.
- 19) Notarized translated English version of the documents in a language other than English/Tamil, if any.

Yours faithfully,

**SIGNATURE OF THE
TENDERER**

Encl: As stated above

ANNEXURE-VII

ANNUAL TURN OVER STATEMENT

The Annual turnover of M/s. for the past three years are given below and certified that the statement is true and correct.

S.No	Year	Turnover (Rs. in lakh)
1	2019-2020	
2	2020-2021	
3	2021-2022	
	Total	
Average Annual turnover		

DATE :

SIGNATURE OF THE TENDERER

SIGNATURE OF CHARTERED ACCOUNTANT (with seal and Address)

ANNEXURE-VIII

Declaration for not having blacklisted

CERTIFICATE

Date: _____

Certified that M/s...../ the firm /company or its partners / share holders had not been blacklisted by Tamil Nadu Arasu Cable TV Corporation Limited (TACTV), or by any Government Agencies.

**SIGNATURE OF THE
TENDERER**

(with seal and address)

ANNEXURE-IX

DECLARATION FORM

Date: _____

a) I/We having our office at do declare that I/We have carefully read all the conditions of tender sent to me/us by the Tamilnadu Arasu Cable TV Corporation Limited (TACTV), for the tenders floated vide tender ref .no._____ for providing the STB's for a period of One year and complete the contract as per the tender conditions.

b) I/We have downloaded the tender document from the internet site www.tactv.in /www.tenders.tn.gov.in and I /We have not tampered / modified the tender document in any manner. In case, if the same is found to be tampered / modified, I/ We understand that my/our tender will be summarily rejected and full Earnest Money Deposit will be forfeited and I /We am/are liable to be banned from doing business with TACTV or prosecuted.

SIGNATURE OF THE TENDERER

(with seal and address)

ANNEXURE-X

PART-II

From

Name :

Address:

Phone :

Fax :

Email:

To,

The Managing Director,
Tamilnadu Arasu Cable TV Corporation Limited No:
807, Anna Salai, 4th Floor, P.T.Lee. Chengalvarayan
Trust Building, Chennai 600 002

Sir,

Sub: Tender for supply of High Definition Set Top Boxes for TACTV through
Digital marketing platform - Submission of Part – II – Quantity bid Offer-Reg

Ref:- Our tender (Technical Bid) submitted today for providing the High Definition
Set Top Boxes

In continuation of our above tender, we submit herewith the offer for supply of High Definition Digital Cable TV Set Top Boxes to TACTV. We also understand that the cost of the boxes so supplied will be compensated by providing right of advertising on the 'landing page' of TACTV through the digital marketing platform, for a period of three years as specified by TACTV in this tender document. We agree to abide by the terms and conditions stipulated by the TACTV and also agree to complete the entire contract, at the quantity quoted by us. The quantity quoted and approved by the TACTV in this tender will hold good as per TACTV tender conditions.

Yours faithfully,

**SIGNATURE OF THE
TENDERER**

ANNEXURE-XI

QUANTITY BID

S.No.	Description	Base number of set top boxes A	Addl. No of HD set top Boxes *bided B	Total C=A1+B1+A2 +B2
		(Nos)	(Nos)	(Nos)
1	First year	A1 = 2500000	B1 =.....	C1 = A1 + B1 =
2	Second Year	A2 = 500000	B2 =	C2 = A2 + B2 =

* Bids (B1 and B2) could also be a negative number.

(In Numbers (C = C1+C2) : _____)

(In Words: (C = C1+C2))

Fair value of one Set Top Box:(in Rupees)
(Rupees in words: _____)

I agree for further negotiation in quantity.

Signature of Bidder

ANNEXURE-XII

CHECKLIST OF DOCUMENT

Documents to be enclosed in Part-I:

- 1.A covering letter on your letter head addressed to The Managing Director, Tamilnadu Arasu Cable TV Corporation Limited (TACTV), No: 807, Anna Salai, 4th Floor, P.T.Lee. Chengalvarayan Trust Building, Chennai 600 002
- 2.Tender conditions duly signed in each page and enclosed in token of accepting the Tender conditions.
- 3.Tender conditions duly signed in each page
- 4.Demand Draft no./BG No: _____for Rs.1,25,00,000/- (Rupees One Crore Twenty five Lakh only), in favour of “Tamil Nadu Arasu Cable TV Corporation Limited”, Drawn on _____ Bank payable at Chennai, towards Earnest Money Deposit.
- 5.Authorization letter from the Agency for the person to sign the tender.
- 6.Details of the Tenderer (as per Annexure-V)
- 7.Annexure-VI (Part I covering letter)
 - 8.Average annual turnover statement duly certified by a Chartered Accountant (as per Annexure-VII).
 - 9.Declaration for not having black listed either by TACTV or by any other Govt. agencies (as per Annexure-VIII).
 - 10.Declaration for not having tampered the Tender documents downloaded from the websites www.tactv.in and www.tenders.tn.gov.in (Annexure-IX).
- 11.The copy of certificate of incorporation/registration.
- 12.Copy of Memorandum and Articles of Association.
- 13.Copy of Registered Partnership deed, in case of Partnership Firm.
- 14.Purchase Orders issued by the clients
- 15.Chennai Office Address or Declaration
- 16.The Annual Report / certified copies of Balance Sheet, Profit & Loss statement along with schedules for the last 3 consecutive financial years i.e FY 2019-20,2020-21 & 2021-22
- 17.Land Border – Exemption certificate
- 18.Copy of Registration certificate as a firm under GST.
- 19.Copy of PAN allotment Certificate/ PANCARD issued by Income Tax Department.
- 20.Notarized translated English version of the documents in a language other than English/Tamil, if any.
- 21.Schematic diagram of PCB layout of STB should be submitted with Part-I Technical Bid.
- 22.The Software encryption key that allows to update machine software to be provided.
- 23.Declarations mentioned in the Qualification Criteria
- 24.Source code, Boot loader & firmware code, All drivers of the modules like flash, demux, tuner, IR, remote and any other modules used in the box, Any middleware code that interacts with driver code and Conditional access API'S, APPLICATION SOURCE CODE, the entire SDK with all source code, Libraries etc

Documents to be enclosed in Part-II

1. A covering letter on the letter head addressed to The Managing Director, Tamilnadu Arasu Cable TV Corporation Limited (TACTV), No: 807, Anna Salai, 4th Floor, P.T.Lee. Chengalvarayan Trust Building, Chennai 600 002 (as per Annexure-X)
2. Quantity Bid as per Annexure-XI of the Tender document.

Note: Tenders submitted in unsealed cover would summarily be rejected.

SIGNATURE OF THE TENDERER (with seal and address)

LIST OF SERVICE CENTRES IN TAMILNADU

S.No.	Address	Contact Person	Phone/Mobile Number

SAMPLE SUBMISSION FORM

S.No	Item Description	Make	Model	Brochure/ Specification of the product	S.No of the item
1.					
2.					
3.					

SIGNATURE OF THE TENDERER

(with seal and address)

CLARIFICATION ON TENDER DOCUMENT FORMAT

BIDDER'S REQUEST FOR CLARIFICATION			
Name and Address of the Organization submitting request		Name and Position of Person submitting request	Contact Details of the Organization / Authorized Representative
			Tel:
			Fax:
			Email:
S. No.	Reference(s) (Section, Page)	Content of Tender requiring Clarification	Points of clarification required
1			
2			
3			

SIGNATURE OF THE BIDDER

(with seal and address)

MODEL AGREEMENT FORM

AGREEMENT

This Agreement made this ___th day of _____ 2022 BETWEEN TAMILNADU ARASU CABLE TV CORPORATION LIMITED, No.807, 4thFloor, PT Lee Chengalvarayan Naicker Building, Anna Salai, Chennai 600 002 , herein after referred to as “TACTV” on ONE PART and M/s. _____ (led consortium) represented by its _____, Thiru. _____, Son of Thiru. _____ having its registered office at _____ hereinafter called the “SUPPLIER” on the OTHER PART.

2. Whereas TACTV floated tenders for supply of High Definition Set Top Boxes and Digital services for TACTV by providing rights of advertising and consequential revenue at Landing page of TACTV which were opened on _____.
3. And whereas Supplier, (the prime bidder of consortium comprising of M/s. _____, M/s. _____ and M/s. _____), has made an offer to supply High Definition Set Top Boxes and Digital services for TACTV by providing rights of advertising and consequential revenue at Landing page of TACTV on _____.
4. And whereas the Supplier has quoted to supply _____ Nos. of High Definition Set Top Boxes and Digital services for TACTV by providing rights of advertising and consequential revenue at Landing page of TACTV as per configuration mentioned in the Tender Document No. _____
5. And whereas the Supplier after due negotiation agreed to undertake the contract of supplying of High Definition Set Top Boxes and Digital services for TACTV by providing rights of advertising and consequential revenue at Landing page of TACTV
6. Whereas TACTV has accepted the negotiated quantity of the Supplier vide letter No. _____ dated _____.
7. And whereas both TACTV and the Supplier have agreed to execute an agreement setting out the terms and conditions here under mentioned as agreed to by both the parties to this agreement.

NOW THIS DEED OF AGREEMENT WITNESSES:

8. EMD and Security Deposit

- a. The Supplier has remitted an amount of Rs.1,25,00,000/- (Rupees One Crore Twenty five Lakhs Only) towards Earnest Money Deposit (EMD) in the form of an Irrevocable Bank Guarantee issued by _____ Bank, _____ Branch (BG No. _____ valid till _____).
- b. The “Supplier” has remitted an amount of Rs. _____ /-(Rupees _____ only) towards Security Deposit (SD) after adjusting the Earnest Money Deposit of Rs.1,25,00,000/-, in the form of an Irrevocable Bank Guarantee issued by _____ Bank, _____ Branch (BG No. _____ valid till _____).
- c. Security Deposit will be returned only after completion of the contract period of three years.
- d. In case of non fulfillment of contract, Security Deposit will be forfeited.

9. Scope of Work

- (a) TACTV intends to supply HD (STB) to its subscribers. The supplier will have to supply TACTV- labelled HD(STB). The scope of supply for set top boxes shall include Conditional Access System (CAS). The detailed specifications for set top boxes is given in the Annexure-I(A).
- (b) The set top boxes and its accessories including remote control should have a replacement warranty for a period of *one* year from the date of supply of STBs at warehouse and acceptance by TACTV. During the warranty period, the supplier should also provide maintenance support for any other items supplied under the contract free of cost. The supplier should have physical arrangements in every taluk for extending service support.
- (c) The STBs are to be delivered at warehouses designated by TACTV at Chennai, Madurai, Coimbatore and Trichy and tracked as assigned to individual customer by entering SI No. the through software application.
- (d) The supplier will also supply a programmatic advertising process, real-time bidding (RTB) platform for digital marketing of its air space to TACTV. The platform should at least cover the following functionalities:
 - i. An automated auction that allows advertisers to bid on ad space in TACTV on a cost per mille (CPM) basis.
 - ii. Real-time bidding to allow multiple advertisers to bid on ad inventory in TACTV channels, with the winning ad being displayed within 5 seconds of completion of the bidding process.

- iii. RTB should allow reverse auction; also
- iv. Provision with options to put up bids for different marketing channels must be made available. Marketing options must include – landing page ad; in channel ad; Volume +/- ads; watermark ads/ logo ads etc.
- (e) A subscriber management platform should also be developed and deployed to ensure that each of the unique id of these set top boxes and the subscriber subscriptions are properly mapped to the actual end-consumers. The details of the consumers' mobile number/email/unique identifier such as Aadhaar number/ration card should also be able to be captured. The app should allow submission of complaints to the LCO/successful bidder & track the complaint till reduction. MOSs/LCOs/DSD should also have login to manage their respective customer, supply & receipt & installation of STBs.
- (f) The supplier will have the rights to use and shall be entitled for corresponding revenue from advertisement published on landing page for a period of three years. The set top boxes will remain as the property of TACTV.
- (g) The supplier must provide at least 25 lakh set top boxes during the first year, a 5 lakh set top boxes during the second year and 'nil' in 3rd year. All set top boxes and its accessories should carry a comprehensive replacement warranty of one year from date of installation by TACTV at customer premises.
- (h) The supplier should also supply the required CAS system with all required licensing of the set top boxes. The Licensing is perpetual for CAS /SMS to STB. After three years AMC will be paid for OEM by TACTV.
- (i) The supplier must choose any four of the CAS providers, one for each of the 4 regions, listed at Annexure – I(B). The successful bidder will also have to ensure that the OEMs of the CAS systems contractually supply the CAS system directly to TACTV and not to the successful bidder.
- (j) As consideration for supply for Set Top Boxes, Supplier shall be compensated through right to use landing page advertisement in digital marketing platform. The invoice for the advertisement revenue shall be raised by Supplier on advertisement customer. Further, TACTV shall raise invoice on the Supplier for right to use landing page in digital marketing platform as and when the economic benefits accrue in the form of set-top boxes supplied by the Supplier to TACTV in the respective year.
- (k) The revenue from landing page advertising should be assessed by the supplier only (As per legal norms and TRAI regulations) and TACTV will not be responsible for any resulting action arising out of this arrangement.
- (l) An Interconnect Agreement will be executed with LCOs by the TACTV and Security Deposit amount as fixed by TACTV, per Box will be paid by the LCOs to TACTV. Supplier shall distribute STBs to the LCOs after payment of Security Deposit by LCOs to TACTV which will be informed to the Supplier.

10. The detailed quantity of supply of HD STBs is given as under:

S.No.	Description	Number of set top boxes to be supplied.
		(Nos)
1	First year	
2	Second Year	
3	Third Year	

11. Regions to be Supplied

Area 1	Area 2	Area 3	Area 4
Chennai	Coimbatore	Trichy	Madurai
Kancheepuram	Tiruppur	Ariyalur	Dindigul
Chengalpattu	Erode	Perambalur	Theni
Tiruvallur	Salem	Thanjavur	Virudhunagar
Vellore	Namakkal	Mayiladuthurai	Ramanathapuram
Ranipet	Dharamapuri	Tiruvarur	Tenkasi
Tirupattur	Krishnagiri	Nagapattinam	Thoothukkudi
Tiruvannamalai	The Nilgiris	Pudukottai	Tirunelveli
Villupuram		Karur	Kanniyakumari
Cuddalore			Sivagangai
Kallakurichi			

12. ISSUE OF WORK ORDER:

The first year work order will be released within 15 days by TACTV from the date of execution of agreement. The second year work order will be released during the first week of completion of 365 days from the signing of the agreement. The successful bidder should supply items as per the schedule given in clause 23 for each of the two years. The supplier should sent a daily report on the supply of the set top boxes.

13. SUPPLY SCHEDULE:

(i) The timeline for each year for completing the supply of quantity for each year shall be as follows:

S.No.	Project Milestone	Timeline
	10% of the bid quantity	Within 45 days from the date of issue of work order
	25% of the bid quantity	Within 60days from the date of issue of work order
	30% of the bid quantity	Within 90 days from the date of issue of work order
	35% of the bid quantity	Within 105 days from the date of issue of work order

14. Delay beyond this period will attract penalty.

- (a) The supplier shall print TACTV LOGO / HELP DESK LOGO / Holograms/ Serial Number etc. as per the instructions of TACTV on the items (STB + remote) delivered.
- (b) The supplier should intimate the readiness of the items to TACTV for benchmark testing at least 7 days in advance before the dispatch.
- (c) Benchmark test will be conducted on all items/samples drawn from the supplies by third party agency nominated by TACTV. The testing will be done a random 2 sample boxes. The testing cost will be borne by TACTV.
- (d) After successful delivery of the items, the supplier must obtain a certificate in the specified format duly certified by the respective consignee and submit it to TACTV. Based on the certificate given by consignee and the copy of test reports, TACTV will issue acceptance letter to the supplier.
- (e) If the contract is not completed within the stipulated time or extended time, TACTV will hold full authority to cancel the tender or take any such action that will be deemed fit to the occasion at the risk and cost of the supplier. Such cancellation will entail forfeiture of Security Deposit and losing the bidding page advertising rights.
- (f) In the event of non- performance of the contractual provisions or failure to effect the supply within the stipulated time or during the extended period and if it is found that the contractor, has not fulfilled the contractual obligation with TACTV in any manner during the currency of the contract or also found on later date, TACTV reserves the right to disqualify such supplier to participate in future tenders or black list the firm up to a maximum period of 3 years.
- (g) The supplier should make arrangements to deliver the Set Top Boxes to the registered LCOs of TACTV at the designated TACTV Offices in the Districts.

15. WARRANTY:

- (a) All items (STB+RC) should have a replacement warranty for a period of *one* year from the date of installation of STBs at customer premises against manufacturing

defects. During the warranty period, the bidder should also provide maintenance support for all items covered under the contract free of cost.

However the warranty will not extend to failures due to non-manufacturing defects such as water-logging, tamperly by unauthorized person, failure due to high voltage or lightning, provided the same is proved beyond doubt..

- (b) The supplier shall supply 2% additional quantity as reserve for replacement, which will be kept at the designated warehouses of TACTV.
- (c) The successful bidder should maintain toll free numbers @ one line for every 5 lakh Set Top Box supplied operating 24x7 to register service complaints. Further a mobile app (Android & IoS) shall also be deployed for registration, tracking, resolution of complaints, warranty.
- (d) The call centre shall be located in Chennai and handle complaints in both Tamil & English.

16. OBLIGATION OF TACTV

Testing cost of all items will be borne by TACTV.

The installation of set top boxes will be done by TACTV/ Local Cable Operator (LCO).

17. PAYMENT TERMS

The payment to the successful bidder will be through the monetization of the 'landing page' of TACTV. The successful bidder shall submit weekly report and audited quarterly reports on the amount of monetization done by the Successful bidder.

The successful bidder should submit the audited accounting reports, quarterly, exclusively for this project.

18. PENALTY

- (a) Failure to comply with the stipulated schedule of supply to TACTV will attract a penalty of 0.5% of the average amount monetized during the previous quarter per week of the delay, up to a maximum of INR 15 crores. Any delays that lead to lead to penalty amount beyond the cap of INR 15 crores will result in cancellation of the contract.
- (b) The complaint raised by TACTV/LCO/subscribers has to be rectified as follows:
- (c) LCOs will handle, if the fault is due to software installation and upgradation, troubleshooting like signal connection not proper, power adaptor not working, AV cable faulty.
- (d) For other faults, Set top boxes will be brought to the service successful of centres bidder by LCOs. It has to be resolved within 24 hours by the supplier. If it is not possible to resolve within 24 hours the subscriber will be given spare set top boxes from the 2% reserve available with LCOs.

- (e) The supplier has to rectify the faults within 96 hours from the time of receipt of the box from the LCO and in default provide a new STB at his own cost.
- (f) Any failure to comply with the above time lines will attract a penalty of Rs.25 per set top box per day.

19. TERMINATION OF THE TENDER

TACTV reserves right to terminate the Tender at any time during the validity period on account of non-fulfillment of contract on any account .

20. GENERAL CONDITIONS

- (a) Conditional tender in any form will not be accepted.
- (b) TACTV reserves the right to relax, waive, or amend any of the tender conditions.
- (c) The right of final acceptance of the tender is entirely vested with the TACTV and TACTV reserves the right to accept or reject any or all the bidder in part or in totality or to negotiate with any or all the bidders or to withdraw/ cancel/ modify this tender without assigning any reason whatsoever.
- (d) The successful bidder shall not off load either full or part of the work to other bidder.
- (e) If delivery performance of the bidder is not as per the schedule, then the TACTV reserves the right to reallocate the quantity to other bidders. Any additional cost incurred by TACTV due to such reallocation should be borne by the bidder.
- (f) Any notice regarding any problems, to the bidder shall deemed to be sufficiently served, if given in writing at his usual or last known place of business.
- (g) In the course of discussion and instruction, TACTV may disclose information of confidential and proprietary nature relating to its business model, subscribers, etc. to the bidder. Such information shall be considered as confidential .

21. ARBITRATION

- (a) In case of any dispute in the bid, including interpretation if any on the clauses of the bid or the agreement to be executed, the matter shall be referred by TACTV/bidder to an arbitrator who shall be selected by the bidder from the panel of arbitrators approved by TACTV and communicate the same within 15 days, from the date of receipt of the letter from TACTV along with the panel. If there is no reply from the bidder within 15 days, TACTV shall choose any of the arbitrators from the panel of arbitrators referred to above. The remuneration for the arbitrator and other expenses shall be shared equally by TACTV and the bidder.

- (b) The venue of the Arbitration shall be at the Head office of the TACTV, Chennai. The decision of the Arbitrator shall be final and binding on both the parties to the Arbitration.
- (c) The Arbitrator may with the mutual consent of the parties, extend the time for making the award. The award to be passed by the Arbitrator is enforceable in the Court at Chennai city only.

22. JURISDICTION OF THE COURT

Any dispute arising out of non-fulfillment of any of the terms and conditions of this Tender /Agreement will be subject to the Chennai jurisdiction only. We agree to the above terms and conditions.

We agree to the above terms and conditions.

In witness whereof, Thiru._____ on one part and Thiru.(Name), (Designation), M/s. _____ on the other part signed this agreement on the day, month and year first above.

Agreed by both the parties.

SUPPLIER

TACTV

WITNESSES: -

WITNESSES: -

1.

1.

2.

2.

**Bank Guarantee Format for Earnest Money Deposit
(To be executed in Rs.100/- Stamp Paper)**

To

The Managing Director,
Tamil Nadu Arasu Cable TV Corporation Limited (TACTV),
No.807, 4thFloor, PT Lee Chengalvarayan Naicker Building,
Anna Salai,
Chennai 600 002

Bank Guarantee No:

Amount of Guarantee: Rs.1,25,00,000/- (Rupees One Crore and Twenty five lakhs only)

Guarantee covers from:

Last date for lodgement of claim:

WHEREAS Managing Director, Tamilnadu Arasu Cable TV Corporation, No.807, 4th Floor, PT Lee Chengalvarayan Naicker Building, Anna Salai, Chennai 600 002, Tamilnadu, India (herein after called "TACTV") has floated Tender for supply of High Definition Set Top Boxes and Digital services for TACTV by providing rights of advertising and consequential revenue at Landing page of TACTV vide tender reference number _____ dated _____.

AND WHEREAS Consortium led by M/s (Name and Registered Office Address of the Prime Bidder) / M/s. (Name and Registered Office Address of the individual entity, in case of single bidder) (herein after called "Bidder") is interested in participating in the tender.

AND WHEREAS as per the tender conditions, the bidder has to submit an irrevocable unconditional bank guarantee to the value of Rs.1,25,00,000/- (Rupees One Crore and Twenty five lakhs only) from any Indian Nationalized/Scheduled Commercial Bank valid for a period of six months towards Earnest Money Deposit along with the bid.

We (Bank Name), having branch at (Branch Address) (hereinafter referred as the "Bank") at the request of the bidder have agreed to give the bidder such a Bank Guarantee and we hereby absolutely, irrevocably and unconditionally undertake to guarantee you and keep you guaranteed to the extent of the sum of Rs.1,25,00,000/- (Rupees One Crore and Twenty five lakhs only)and we undertake to pay TACTV upon your first written demand and without cavil or argument, any sum or sums within the limit of Rs.1,25,00,000/- (Rupees One Crore and Twenty five lakhs only)as aforesaid without TACTV needing to prove or to show grounds or reasons for TACTV's demand for the sum specified therein.

We, the Bank, further agree that change or addition to or other modification of the terms of the Tender or of the works to be performed there under or of any of the Contract documents which may be made between TACTV and the bidder shall not in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition and modification.

NOTWITHSTANDING ANYTHING CONTAINED HEREINABOVE:

Our liability under this guarantee is limited to Rs.1,25,00,000/- (Rupees One Crore and Twenty five lakhs only) This Bank guarantee will be valid up to _____.2023.

Unless a demand is made on the Bank at (Bank Name), Branch at (Branch Address) in writing on or before __.12.2022, all your rights under the Guarantee will be forfeited and we shall be relieved and discharged from all liabilities there under.

In witness whereof the Bank, through its authorized officer, has set its, hand and stamp on this
at _____.

Witness:

(Signature)

(Name in Block Letters)

**GOVERNMENT OF TAMILNADU
FINANCE (Salaries) DEPARTMENT**

G.O.Ms. No.343, Dated 18th September 2020.

(Saarvari, Purattasi-2, Thiruvalluvar Aandu 2051)

ABSTRACT

Public Procurement-Restriction on Public Procurement from bidders of certain countries under Rule 144 (xi) of General Financial Rules (GFRs) - amended by Government of India - adopted by the State Government under the Tamil Nadu Transparency in Tenders Act, 1998

-Orders -Issued.

Read the following:-

1. From the Secretary (Expenditure), Ministry of Finance, Department of Expenditure, Government of India, Letter No.F-6/18/2019-PPD,dated:23.07.2020.
2. Office Memorandum F.No.6/18/2019-PPD, Ministry of Finance, Department of Expenditure, Public Procurement Division, New Delhi, dated: 23.07.2020.
3. Order(Public Procurement.1) Ministry of Finance, Department of Expenditure, Public Procurement Division, New Delhi,dated:23.07.2020.
4. Order (PublicProcurement.2) Ministry of Finance, Department of Expenditure, Public Procurement Division, New Delhi, dated:23.07.2020.

ORDER:

In the letter first read above, Government of India stated that, the Government of India's General Financial Rules (GFRs), 2017 have been amended to provide for restrictions on public procurement from bidders from a country or countries or class of countries on grounds of defence of India or matters directly or indirectly related thereto, including national security, and an order has been issued requiring prior registration of bidders from countries sharing a land border with India. Accordingly, Government of India has directed the State Governments to implement the said orders, in respect of procurement done by the State Government and its undertakings and projects. The letter further clarifies that this direction may be treated to have been issued under Article 257 (1) of the Constitution.

The Department of Expenditure had earlier issued an order (Public

Procurement No.1) dated 23rd July 2020 under Rule 144 (xi) vide reference F.No.6/18/2019-PPD, wherein restrictions have been laid for procurement under Rule 144 (xi), General Financial Rules (GFRs), 2017.

1. The Department of Expenditure had earlier issued an order (Public Procurement No.2) dated 23rd July 2020 under Rule 144, wherein certain exclusions have been provided from these restrictions under Rule 144 (xi), General Financial Rules (GFRs), 2017.
2. The Government of India has issued the above said restrictions in relation to defence of India and National Security, which is listed as item No.1 of the Union List under the Seventh Schedule of the Constitution of India. Since the direction has been issued under Article 257 (1) of the Constitution of India, under which the Union Government can issue directions on matters pertaining to the executive power of the Union, the State Government is bound to implement such directions issued under the said Article.
3. Based on this direction issued by the Government of India under Article 257 (1) of the Constitution of India and the Order issued under the rule 144(xi), General Financial Rules (GFRs), 2017 the State Government of Tamil Nadu, after careful consideration, have decided to issue the following orders for effecting the implementation of the said Government of India's orders :-
 - i) To implement the Order(Public Procurement No.1) and Order(Public Procurement No.2) dated 23rd July 2020, (copy enclosed) under section 21 of Tamil Nadu Transparency in Tenders Act, 1998 in respect of all procurements done by the State Government and the procuring entities under the schedule to the Act, including its Public Sector Undertakings (PSUs), local bodies in Tamil Nadu and all agencies controlled by the State Government as well as Public Private Partnership (PPP) projects receiving financial support from the State Government or its Public Sector Undertakings (PSUs).
 - ii) A Registration Committee shall be constituted under the administrative control of the Industries Department for carrying out all the functions assigned to the Department of Industrial Policy and Internal Trade (DPIIT) in respect of procurement done by the State Government as per the Order (Public Procurement No.1) dated 23rd July 2020.
 - iii) The Registration Committee shall consist of the following members:-

Managing Director & Chief Executive Officer, Guidance (as Chairman)

 - a) Additional Chief Secretary to Government (Finance), or his representative.
 - b) Additional Chief Secretary to Government (Information Technology) or his representative.
 - c) Principal Secretary to Government (Public Works Department) or his representative.
 - d) Industries Commissioner and Director of Industries and Commerce.
 - iv) This Registration Committee so constituted shall have the following functions:-
 - a) Committee shall lay down the method of application, format etc., for such bidders as stated in para of the said Government of India Office Memorandum (Public

Procurement No.1)

- b) On receipt of application seeking registration, the Committee shall first seek political clearance from the Ministry of External Affairs and security clearance from the Ministry of Home Affairs.
 - c) Registration shall be given only after political and security clearances have both been received, and the registration of such bidder shall be for all kinds of tender or for a specified type of goods or services, and shall be for a specified or unspecified duration of time, as deemed fit.
 - d) The Committee shall suspend or cancel the registration already granted, if there is sufficient cause.
 - e) The Committee shall send periodic reports on acceptance/refusal of registration to the Cabinet Secretariat, Government of India and to the chief Secretary, Government of Tamil Nadu.
 - f) Any other function prescribed by the State Government or by the Government of India on the said subject.
4. The Office Memorandum and orders of Government of India, second to fourth read above are annexed to this order.

(BY ORDER OF THE GOVERNOR)

S.KRISHNAN

ADDITIONAL CHIEF SECRETARY TO GOVERNMENT

**Requirement of Registration as specified in Office Memorandum F.No:6/18/2019-
PPD, issued by Ministry of Finance, Department of Expenditure, Public
Procurement Division Government of India dated 23rd July 2020**

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. “Bidder” (including the term „tenderer“, „consultant“ or „service provider“ in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated herein before, including any agency branch or office controlled by such person, participating in a procurement process.
- III. “Bidder from a country which shares a land border with India” for the purpose of this Order means:-
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country ;or
 - d. An entity whose *beneficial owner* is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The beneficial owner for the purpose of (iii) above will be as under :
 1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who Explanation-
 - a. “Controlling ownership interest” means ownership of or entitlement to more than twenty-five percent. of shares or capital or profits of the company;
 - b. “Control” shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their share holding or management rights or share holders agreements or voting agreements;
 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profit soft he partnership;
 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain or control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. *[To be inserted in tenders for Works contracts, including Turnkey contracts]* The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares all and border with India unless such contractor is registered with the Competent Authority.

Model Certificate for Tenders (for transitional cases as stated in para 3 of this Order)

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country and is eligible to be considered.”

Model Certificate for Tender

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority, I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.[Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”

Model Certificate for Tenders for Works involving possibility of sub-contracting

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub- contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.[Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”

Model Certificate for GeM:

“I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this vendor/bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this vendor/bidder fulfills all requirements in this regard and is eligible to be considered for procurement on GeM. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]”