

REQUEST FOR QUOTATION

SENTECH INVITES SUPPLIERS FOR:

Project title:	Supply and deliver 49 FM Re-Broadcast Receivers for Southern region		
Quotation or Proposal no:	RFX6000002922		
RFQ Issue date:	31/07/2025		
Closing date:	05/08/2025		
Closing time:	12h00	Validity period:	90 days

You are invited to provide a quote to deliver the goods, services or works defined in the Scope of Work.

QUOTATIONS OR PROPOSALS TO BE RETURNED TO:

Quotations Administrator	Zanele Zulu
Telephone no:	011 471 4000
E-mail:	Quotations6@sentech.co.za

Form of Offer and Acceptance

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the services as stated in the RFQ: Scope of Work

The Service Providers, identified in the Offer signature block, has examined the documents listed in the RFQ and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of this RFQ.

By the representative of the Service Provider, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the Service Provider offers to perform all of the obligations and liabilities of the RFQ under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the RFQ.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VAT IS:

(in words)

Rand
 ;
 R.....(in figures)

THE OFFERED PRICES ARE AS STATED IN THE PRICING SCHEDULE

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the Service Provider before the end of the period of validity stated in the RFQ, or other period as agreed.

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Acceptance

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Service Providers Offer. In consideration thereof, the Employer shall pay the Service Provider the amount due in accordance with the conditions of the RFQ. Acceptance of the Service Providers Offer shall form an agreement between the Employer and the Service Provider upon the terms and conditions contained in this RFQ.

Deviations from and amendments to the documents listed in the RFQ and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the Service Provider and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The Service Provider shall within two days of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the RFQ. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the Service Provider receives one fully completed original copy of this document, including the Schedule of Deviations (if any).

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

1. ADMINISTRATIVE RESPONSIVENESS CRITERIA

1.1. Suppliers are required to ensure that they meet all the Administrative Responsiveness Criteria. Suppliers that do not meet all the Administrative Responsive Criteria may not be awarded this Quote. It is the service provider's responsibility to ensure that they are tax compliant and that all required information is submitted to Sentech. Supplier's providing quotations must be registered on the Sentech Supplier Database.

1.2. Quotations must be in a Company Letterhead.

1.3. Quotations or Proposals must be received on or before the closing date and time specified on the Call for Quotation or Proposal document.

1.4. Quotations or Proposals must be fully completed and signed in BLACK ink.

1.5. Quotations must be submitted via Email.

1.6. The Tenderer undertakes to the Purchaser that it will treat as confidential the terms of this RFQ together with all the Purchaser's confidential information and will not disclose such confidential information to any person, firm or company (other than to its auditors and other professional advisers) or to the media, and will not use such confidential information other than for the purposes of this RFQ, subject always to any prior specific authorisation in writing by the Purchaser to such disclosure or use."

2. AWARD OF RFQ's

Sentech may appoint one or more suppliers, in whole or in part, or not appoint any supplier/s at all, and/or cancel the bid in its entirety, at Sentech's sole and exclusive discretion, in order to satisfy various needs which may be identified, and to manage certain risks associated with the supply of goods or services specified in respect of the Bid.

3. RATE OF EXCHANGE, CURRENCY FLUCTUATIONS AND CURRENCY

All bid prices quoted shall be in South African Rands (ZAR). If prices are in a foreign currency, the rate of exchange quoted shall remain fixed throughout the term of the agreement. Bidders will bear the risk of and all cost/s associated with currency fluctuations, therefore Bidders shall be required to manage such risk in their bid price.

4. GENERAL - PRICES

All prices shall be quoted in ZAR.

Unless written approval has been obtained from Sentech, no adjustment in contract prices will be made.

Applications for price adjustment must be accompanied by documentary evidence in support of any adjustment.

5. PRICE NEGOTIATIONS

Sentech reserves the right to negotiate market related prices and discounts. If market-related prices are not agreed to, Sentech reserves the right to cancel the Bid.

6. EVALUATION CRITERIA

The evaluation criteria are stipulated in 7 below. It is the Bidder's responsibility to ensure that they have responded to the evaluation criteria. Failure to meet the evaluation criteria will result in the Bidder not being evaluated further. Bidders must ensure that they have included all supporting documentation required to support their response to the Bid

7. RFQ EVALUATION METHOD

This RFQ will be evaluated as described in the table below.

Evaluation Method	1. Stage 1 – Administrative Responsiveness Evaluation All the Quotations will be evaluated against the administrative responsiveness requirements as set out in section 2 of the RFQ Data. 2. Stage 2 – Functional Evaluation Criteria The proposals that COMPLY with the Mandatory evaluation criteria be evaluated against the Functional Criteria. Suppliers meeting the minimum requirement will be evaluated further. 3. Stage 3 – Price and Preference Suppliers with the lowest Price offered will score the highest points. Only Suppliers that submit a valid B-BBEE Certificate can claim preference points in line with the 80/20 Suppliers with the highest number of points will be recommended for the award of this quotation, unless there are compelling and justifiable reasons not to do so.
--------------------------	---

7.1. Mandatory Evaluation Criteria

The following criteria is mandatory to ALL BIDDERS:

The Mandatory Technical Criteria will be evaluated according to the Technical Specification. A full description of the Technical Specification can be found on page 9 of this Document.

Table 1 - FM Receivers - Mandatory Technical Criteria	Indicate Yes or No and attach the evidence	Provide reference page number in your proposal
1. RF Input Specifications: User selectable, 87.5 MHz to 107.9MHz in $\leq$ 100kHz steps Antenna RF Input must be 50 Ω (N-Type or BNC).	Attach Datasheet or Manual	
2. Stereo Performance: See Section 6 of the technical specification below.	Attach Datasheet or Manual	
3. Frequency Response of outputs See Section 7 of the technical specification below.	Attach Datasheet or Manual	
4. Signal to Noise Ratio: ITU-R 468 Weighted Stereo Signal to Noise Ratio (1mV RF Input, an audio level of +10.6dBu as reference and de-emphasis switched ON): $\geq$ 54dB at 1mV RF Input signal for stereo analogue audio line outputs $\geq$ 75dB at 1mV RF Input signal for AES digital audio line outputs	Attach Datasheet or Manual	
5. Outputs: MPX Outputs: Two low impedance, independently adjustable outputs (BNC) Analogue: two active balanced (XLR) with adjustable levels	Attach Datasheet or Manual	
6. Stereo Performance: See Section 6 of the technical specification below	Attach Datasheet or Manual	
7. Headphone Socket: 6.35mm (stereo) on the front	Attach Datasheet or Manual	
8. AC supply input voltage: (IEC connector): 230 V$\pm$ 10%, 50Hz single phase	Attach Datasheet or Manual	
9. Dimensions: 19" (483mm) wide by 1U high to fit in standard equipment rack	Attach Datasheet or Manual	

10. Operating: Temperature: 0 °C to ≥45°C	Attach Datasheet or Manual	
11. Operating Altitude: Up to 2800m above sea level	Attach Datasheet or Manual	
12. Relative Humidity: 0% to 90% non-condensing	Attach Datasheet or Manual	
13. Selectable IF Bandwidth Selectable IF Bandwidth functionality From 56kHz to 311kHz	Attach Datasheet or Manual	
14. De-Emphasis (with enable/disable option) on: Line Outputs: 50µs	Attach Datasheet or Manual	
15. MPX diversity switching: Automatic switching is provided for the best available feed	Attach Datasheet or Manual	
16. Front panel Monitoring and Control: User friendly control and monitoring user panel with menus clearly defined	Attach Datasheet or Manual	
17. Telemetry monitoring and control: General Purpose Input/Outputs (GPIO) / Ethernet or both	Attach Datasheet or Manual	
18. Audio Muting: Squelch threshold adjustable down to ≤80µV	Attach Datasheet or Manual	
19. RDS encoder for RDS re-insertion	Attach Datasheet or Manual	

7.2. Functional Evaluation Criteria

Since functionality is predominantly a measure of how to operate and maintain the equipment throughout the lifespan of the equipment, Sentech needs to choose the most suitable for its environment and operational requirement.

NOTE: Bidders that do not comply with all the above criteria will not be evaluated further.

	Functionality criteria	Attach evidence and provide reference page number in your Response	Points
1	FM Tuner type: No or invalid information submitted.....0 points Single Tuner.....10 Points Double Tuner.....20 Points	Attach Datasheet or Manual	20
2	Audio output type. No or invalid information submitted.....0 points Analog ONLY.....10 Points Analog & AES3 (XLR) with adjustable level20 Points	Attach Datasheet or Manual	20
3	Telemetry control and Monitoring General Purpose Input/Outputs (GPIO) ONLY5 Points IP Based (Ethernet) ONLY10 Points Both (GPIO & IP)20 Points	Attach Datasheet or Manual	25
4	Service and Support (Repairs and OEM calibrations) No support0 points 1-5 years of support.....10 Points 5-10 years of support20 Points	Attach service support letter	20
5	Extended warranty No extended warranty year.....0 points 1-3 years.....10 Points 3-5 years.....15 Points	Attach extended warranty letter	15
	Total Points:		100

Total minimum qualifying functional score is **65** points.

8. Preference Point allocation – 90/100

Price / Preference	Weighting percentage
Preference:	10%
Price:	90 %
Total must equal:	100%

Sentech will award preference points as follows:

Goal	Points	Evidence required
Historically disadvantaged by unfair discrimination on the basis of Race	5	A valid BBBEE Certificate showing at least 51% black ownership
	2	A valid BBBEE Certificate showing at

		least 25.1 – 50% black ownership
	1	Black owned company showing at least 5 – 25% black ownership
	0	Below 5%
Historically disadvantaged by unfair discrimination on the basis of Gender (women)	4	A valid BBBEE Certificate showing at least 51% women ownership
	2	A valid BBBEE Certificate showing at least 25.1 – 50% women ownership
	1	A valid BBBEE Certificate showing at least 5-25% women ownership
	0	A valid BBBEE Certificate showing at less than 5% women ownership
Historically disadvantaged by unfair discrimination on the basis of disability	1	A doctor's note confirming disability
Total Points	10	

1. Price Calculation 90/10

The following formula will be used to calculate the points for price.

$$P_s = 90 - 10 \left(\frac{P_t - P_{min}}{P_{min}} \right)$$

Where:

- P_s = Points scored for price of bid under consideration
 P_t = Rand value of bid under consideration
 P_{min} = Rand value of lowest acceptable bid

FM Re-Broadcast Receiver – Technical Specifications

1. Introduction

The FM Re-Broadcast Receiver Systems detailed in this tender enquiry will be used by Sentech at several transmitting stations throughout South Africa. Guaranteed delivery times of the Receivers will be of great importance to Sentech's planning and will thus be an important aspect of the tender adjudication and subject to penalties.

Receivers will be installed at stations which, in addition to transmitting VHF FM radio services, typically radiate many VHF and/or UHF television programmes. The receivers belong to the following sites in the southern region; **King Williams town (8), Mthatha (10), Matatiele (10), Queenstown (11), DeAr (4), and VilliersDorp (6)**. Receivers will operate on a completely unattended basis and the essential requirement is thus for equipment of high reliability.

Bidders are to provide clear and unambiguous answers to each clause contained in this tender specification. In the event of non-compliance with a clause, the bidders shall clearly indicate the extent of deviation from the stated specification.

Bidders are also reminded that they shall, as part of their reply, submit detailed supply records with contact references of the actual type of equipment which is being offered. The bidders may also elect to supply a recent user report of the actual product, if he so wishes.

2. Extent of work

The extent of work covered by this specification includes the design, manufacture, factory testing, packaging, and delivery (ex-works) of a range of FM Re-Broadcast Receiver systems as may be required by Sentech during the envisaged contract period.

3. Unit requirements/features

The following features should be included:

- 3.1. Selectable IF Bandwidths: From 56kHz to 311kHz
- 3.2. RDS encoder for RDS re-insertion
- 3.3. Stereo Regeneration
- 3.4. Headphone Socket: 6.35mm (stereo) on the front
- 3.5. MPX diversity switching
- 3.6. De-Emphasis (with enable/disable option) on. Line Outputs: 50µs
- 3.7. Front panel Monitoring and Control
- 3.8. General Purpose Input/Outputs (GPIO) for telemetry monitoring and control
- 3.9. Audio Muting with Squelch threshold adjustable down to at least 80µV

4. RF Input Specifications

- 4.1. RF Input Tuning Range: User selectable, 87.5 MHz to 107.9MHz in $\leq 100\text{kHz}$ steps.
- 4.2. Antenna RF Input must be $50\ \Omega$ (N-Type or BNC).

5. Outputs (Program)

- 5.1. MPX Outputs: Two low impedance, independently adjustable outputs (BNC)
- 5.2. Digital: AES3 (XLR) with adjustable level (optional)
- 5.3. Analogue: Two active balanced (XLR) with adjustable levels
- 5.4. Failover Audio Backup from memory.

6. Stereo Performance

- 6.1. Stereo Crosstalk from 40Hz to 15kHz referenced at +6dBu: $\geq 45\text{dB}$ on analogue, digital and MPX outputs (RMS detected, De-emphasis switched OFF)
- 6.2. Unweighted RMS detected Stereo Signal to Noise Ratio (1mV RF Input, an audio level of +6dBu as reference and de-emphasis switched ON):
 - 6.2.1. $\geq 60\text{dB}$ at 1mV RF Input signal for stereo analogue audio line outputs
 - 6.2.2. $\geq 75\text{dB}$ at 1mV RF Input signal for AES digital audio line outputs
- 6.3. ITU-R 468 Weighted Stereo Signal to Noise Ratio (1mV RF Input, an audio level of +10.6dBu as reference and de-emphasis switched ON):
 - 6.3.1. $\geq 60\text{dB}$ at 1mV RF Input signal for stereo analogue audio line outputs
 - 6.3.2. $\geq 75\text{dB}$ at 1mV RF Input signal for AES digital audio line outputs
- 6.4. Total Harmonic Distortion (Stereo) at $\pm 75\text{ kHz}$ deviation with De-emphasis switched OFF: $\leq 0.5\%$ (-46dB) THD on analogue, digital and MPX outputs (measured with 25kHz audio filter)
- 6.5. Phase difference between stereo audio outputs: $\leq 2^\circ$ from 40Hz to 15kHz

7. Frequency Response of outputs

- 7.1. Frequency Response for composite MPX output: $\leq \pm 0.5\text{dB}$, 100Hz to 57kHz
- 7.2. Frequency Response for Audio Line Outputs (Analogue and Digital): $\leq \pm 0.5\text{dB}$, 40Hz to 15kHz measured at an audio level of 0dBu

8. Remote Control and Remote Monitoring Facilities

Local and remote monitoring via web interface and SNMP version 2 and upgradeable to later versions should be fully described by the Tenderer. Local and Remote control of equipment via web interface is essential (Not Java based).

9. AC Supply

- 9.1. Voltage: 230 V (IEC connector)
- 9.2. Frequency: 50 Hz

10. Operational, Environment Cooling and size

- 10.1. Climatic Conditions



The Receiver covered by this specification must maintain the performance specified in this document, when operated continuously, in any worst natural combination of the following climatic conditions: -

10.1.1. Altitude

At any altitude up to 2800m above mean sea level.

10.1.2. Temperature

At any ambient room temperature, i.e., cooling air inlet temperature from 0°C to +45°C.

10.1.3. Relative Humidity

Between 0% to 95% non-condensing

10.2. Dimensions

19" (483mm) wide by 1U high to fit in standard equipment rack