

Ref: 19010131

 Dated: 27-11-2019
 Tender Fees PKR-500

M/s

Kindly send your sealed Envelope on "Single Stage Single Envelope basis, quotation must be drop in the tender box marked "**Commercial Purchases**" placed in the main entrance of SC Building, Karachi for the following item(s) latest by at 1030 which will be opened at 1100 hrs. Envelope containing tender, must mention **PIA Ref No.** and **Date of Opening, DT: 02-12-2019** PIA will not be responsible for any postal delay.

S#	Qty Unit	DESCRIPTION	U. Rate	GST (if applicable)	Total
01	08 EA	WALKIE TALKIE Motorola OR Equivalent (Detail Specification Below)			

Tender Terms & Conditions: →
A. All participants are required to affirm that:

- They have quoted the rates *inclusive of all GOVT Taxes*; but; *GST Separately* in absolute terms (Not as a % or + GST)
- Required / tendered quantity may increase or decrease by **15%**.
- SCM Department (PIA) will not be held responsible for any postal delay.
- **Validity of Quote:** Quote must be valid for **120 Days** countable from date of opening of Technical Bid.
- **Registration of Firm:** Participated must be registered with FBR (active Tax Payer in GST) as *the participant should be manufacturer or authorized distributor of manufacturer for particular product in Pakistan.*
- **Delivery:** Delivery must be made as per Schedule given in Purchase Order.
- **Rejection:** Item found below PIA standard shall be rejected / returned at the cost to the vendor.
 - **Guarantee / Warranty:** Two years replacement warranty of equipment and Battery.
 - **Payment Terms:** Payment terms **NTD** (Net Thirty Days). Advance Payment shall not be made for Commercial items. Hence payment term will be NTD after submission of invoices.
 - **Deduction of Tax:** Income Tax will be deducted at source.

B. Declaration by Bidder: We/ I hereby affirm that all terms and conditions of the said tender are read and understood and we/ I expressly confirm and agreed that our bid is in consonant to the terms and conditions of the tenders.

C. Specifications

SNo	Description	Specifications
01	Frequency Range	146 To 174Mhz
02	RE/TX power	5 Watts @ < 5% Distortion
03	RX sensitivity	.25uV Analog 0.19uV Digital @ 12 db SINAD
04	Battery Capacity	Hi-Capacity Li-Ion, 2250mA. 16 Hrs Backup (Digital) Minimum
05	Battery Charger	AC 220 Volts Multi Unit / Single
06	Channel Capacity	Minimum 16 Channel
07	Adjacent channel selectivity	50db 12.5Khz to 80 db 25Khz
08	Channel Spacing	12.5 Khz/25 Khz
09	Frequency Stability	0.5 PPM @ 60°C
10	Spurious rejection (TIA 603D)	70db
11	Inter Modulation (TIA 603C)	70 db
12	Spurious Emission Harmonics	- 57 dbm (TIA 603D)
13	Compliance with MIL STD 810F	All specified standards

14	OEM Software	PC based Original , Analog/Digital with programming Equipment & cable
15	Technical Manual	Original(photo copied manual is not acceptable)
16	Operation Manual	Operations / Programming
17	PTT /Voice operated	VOX activated PTT
18	Radio Standards	TIA, RoHS, ETSI, DMR Tier III Complies
19	Digital Mode	DMR standards

Receiver

Selectivity (TIA603) 25 kHz / 12.5 kHz 80 dB (90 dB typical) / 75 dB (82 dB typical) Selectivity (TIA603D) 25 kHz / 12.5 kHz 80 dB (90 dB typical) / 50 dB (60 dB typical)

Analog Sensitivity 12dB SINAD 0.30 uV (0.22 uV typical) **Digital Sensitivity** 5% BER 0.30 uV (0.20 uV typical) **Signal Displacement Bandwidth** 25 kHz / 12.5 kHz 2 kHz / 1 kHz

Inter-modulation Rejection 25 kHz and 12.5 kHz 85 dB **Spurious and Image Response Rejection** 85 dB

Audio Response +1,-3 dB from 6 dB per octave de-emphasis; 300-3000 Hz referenced to 1000 Hz at line output **Audio Distortion** Less than 3% (1% typical) at 1000 Hz; 60% RSD Line Output 330 mV (RMS) @ 60% RSD FM Hum and Noise (750 µs de-emphasis) 25 kHz / 12.5 kHz 50 dB (56 dB typical) / 45 dB (52 dB typical)

RF Input Impedance: 50 Ohms.

Transmitter

Inter-modulation Attenuation: 55 dB 40 dB for 40W and 100W stations; 70 dB for 30W station **Maximum Deviation (RSD)** 25 kHz / 12.5 kHz ±5 kHz / ±2.5 kHz **Audio Sensitivity** 60% RSD @ 80 mV RMS.

Spurious and Harmonic Emissions Attenuation: 90 dB 85 dB FM Hum and Noise (750 µs de-emphasis) 25 kHz / 12.5 kHz 50 dB (55 dB typical) / 45 dB (52 dB typical).

Frequency Stability: (for temperature and aging variation) 1.5 PPM/External Ref (optional) **Audio Response** +1,-3 dB from 6 dB per octave pre-emphasis; 300-3000 Hz referenced to 1000 Hz at line output.

Audio Distortion: Less than 3% (1% typical) at 1000 Hz; 60% RSD **Emission Designators** FM Modulation: 12.5 kHz: 11K0F3E; 25 kHz: 16K0F3E 4FSK Modulation: 12.5 kHz - Data Only: 7K60FXD; 12.5 kHz - Data & Voice: 7K60FXE.

Emission Designators: 11K0F3E, 16K0F3E, 7K60FXD, 7K60F7D, 7K60FXE, 7K60F7E, 7K60F7W.

Must be Comprise of following feature:

- Supports two simultaneous voice paths in digital 12.5 kHz TDMA 6.25e compliant FM & 4FSK Frequency Generation Synthesized Channel Spacing Analog / Digital 12.5 kHz, 25 kHz / 12.5 kHz (6.25e compliant) Mode of Operation Simplex / Semi-Duplex / Duplex.
- VHF/FM DMR.
- Divides existing channel into two timeslots, delivering twice the capacity through a single repeater.
- Analog and digital conventions are all standard in one base station without the cost of additional software or hardware
- RoHS (Restriction of Hazardous Substances) compliant
- Operates in analog or digital mode with LED indicating mode of operation.
- Fully-featured portables Radio unrivalled voice and data communication.
- Temperature Range -30°C to +60°C
- Background Noise Suppression.
- VHF 146 to 174 MHz.

Terms of Reference

1. *Equipment should be 100% compatible with all features of DMR Standards*
2. *Supplier must send the technical team for initial installation of software and equipment as per requirement*
3. *Clearance certificate for the final payment will be issued after completion and satisfactory installation of the system.*
4. *The evaluating committee from PIA will be evaluate the acceptance of equipment.*
5. *All PIA procurement policies, PPRA, and Government procedure will be followed.*
6. *Equipment should be latest model*
7. *Two years replacement warranty of equipment and battery will be preferred.*
8. *Spares parts should be available for the next 10 years after the expiry of warranty period.*
9. *Supplier guarantees that the delivered equipment will remain in production for at least next three years after it is purchased.*
10. *Type of approval for equipment Model from PTA Islamabad is compulsory.*
11. *Vendor would be asked to provide two units for demonstration purpose free of charge.*
12. *Certificate of Import / Bill of Entry should be provided by the supplier.*
13. *The participants should be manufacturer or authorized distributor of manufacturer for particular product in Pakistan.*
14. *Training of software and hardware for at least three staff members at company expenditure for newly introduced models.*

Yours truly,
For Pakistan International Airline

DGM Purchases Commercial

Authorized Signature of
Supplier with seal and Designation with contact Number: _____