

FAX MESSAGE

FROM : APF PAC KAMRA
FAX NO.051-9225514

TO : PUBLIC PROCUREMENT
REGULATORY AUTHORITY
FAX NO. 051-9219149

REF : APF/1920/42/LP/PC-29 DATED NOVEMBER, 2017

UPLOADING OF TENDER ON PPRA WEB SITE

KINDLY UPLOAD THE UNDERMENTIONED TENDER NOTICE ON PPRA WEB SITE AND FORWARD BILL ALONGWITH TS NO FOR OUR FURTHER NECESSARY ACTION.

OPEN TENDER NOTICE

1. TECHNICAL AND COMMERCIAL OFFERS FOR PROCUREMENT OF UNDERMENTIONED ITEM MAY BE SUBMITTED IN **SEPARATE SEALED ENVELOPES** TO THE FOLLOWING FACTORY ADDRESS.

AVIONICS PRODUCTION FACTORY PAC BOARD KAMRA DISTT ATTOCK

S NO	PART NO	NOUN	QTY	U/I	SPECIFICATION
1	MMD2505G	BASE STATION (BASE RADIO)	02	EA	ATTACHED
2	MRD2505	REPEATER	1	EA	

TERMS AND CONDITIONS:-

2. GENERAL TERMS AND CONDITIONS ARE MENTIONED IN TENDER FORM (APF/ LG-7). TENDER FORM AND COMPLETE DETAILS / SPECIFICATIONS OF ITEMS, IF REQUIRED CAN BE OBTAINED FROM CONTACT NO **051-90996465 AND 6256** ON ANY WORKING DAY BEFORE OPENING OF TENDER.

3. THE FIRM MUST BE GST AND PROFESSIONAL TAX REGISTERED HAVING NTN. **INTERESTED FIRMS ARE TO DEPOSIT 5% BID SECURITY (IN THE NAME OF MD APF) ALONG WITH QUOTATION.**

4. TECHNICAL AND COMMERCIAL OFFERS OF ABOVE MENTIONED ITEM MAY BE SUBMITTED IN SEALED SEPERATE ENVELOPES IN **TENDER BOX NO. 01** PLACED AT MAIN GUARD ROOM APF.

5. LAST DATE FOR SUBMISSION OF TENDERS IS **05 DECEMBER, 2017** BEFORE **1100 HRS.**

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6. THE TENDERS WILL BE OPENED ON THE SAME DAY AT **1130 HRS** IN THE OFFICE OF DIRECTOR LOGISTICS (S&A), APF, PAC, KAMRA.
7. PAYMENT WILL BE SUBJECT TO THE ACCEPTANCE OF ITEMS BY THE USER AND QUALITY DIRECTORATE.
8. FIRMS HAVING THE CAPABILITY TO PROVIDE ABOVE MENTIONED ITEMS AS PER GIVEN SPECIFICATIONS ARE TO QUOTE.
9. INTERESTED FIRMS ARE TO PROVIDE SAMPLES / TECHNICAL DATA ALONG WITH TECHNICAL QUOTATION.
10. ONLY REGISTERED SUPPLIERS, WHO ARE ON ACTIVE TAXPAYERS LIST ARE TO PROVIDE DOCUMENTARY PROOF AND QUOTE ABOVE MENTIONED ITEMS.
11. THIS FACTORY RESERVES THE RIGHT TO REJECT ANY QUOTATION ON TECHNICAL GROUNDS.
12. QUOTATION MUST BE VALID FOR MINIMUM **120 DAYS**.
13. SALES TAX AS APPLICABLE MUST BE MENTIONED SEPARATELY.
14. GUARANTEE/ WARRANTY TERMS AND DELIVERY PERIOD SHOULD BE MENTIONED SEPARATELY.

(TILAL MAZHAR)
Flight Lieutenant
For Managing Director
APF PAC Kamra
Tel Ext: 051-9099-6292

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**WALKIE TALKIE (DIGITAL) SPECIFICATIONS : BASE STATION
(HYTERA MD 788G)**

S NO	FEATURES	RANGE
1	OPERATING VOLTAGES	220 VAC OR COMPATIBLE DC ADAPTOR
2	POWER SUPPLY (EXTERNAL)	TO PROVIDE BACKUP FOR ATLEAST 10 MINS IN CASE OF MAIN FAILURE.(MUST BE HYTERA PS22002 OR DIMOND SD1732EW2).
3	FREQUENCY RANGE	VHF
4	NO OF CHANNELS	>99
5	CHANNEL SPACING	12.5/20/25 KHZ
6	OPEARTING TEMPERATURE	-20 °C TO +55 °C
7	STORAGE TEMPERATURE	-40 °C TO +85 °C
8	CURRENT DRAIN	STANDBY < 0.8 A RECEIVE < 2.0 A TRANSMIT < 11 A (25 WATTS) < 14.5 A (45 WATTS)
9	RF POWER OUTPUT	25-45 W
10	FREQUENCY STABILITY (-20 °C TO +55 °C)	± 1.5 PPM
11	HUM AND NOISE	40 DB @ 12.5 KHZ 45 DB @ 20 / 25 KHZ
12	MODULATION LIMITING	± 2.5 KHZ @ 12.5 KHZ ± 4.0 KHZ @ 20 KHZ ± 5.0 KHZ @ 25 KHZ
13	CONDUCTED / RADIATED EMISSION	-36 DBM < 1 GHZ -30 DBM > 1 GHZ
14	ADJACENT CHANNEL POWER	60 DB @ 12.5 KHZ 70 DB @ 20/25 KHZ
15	DIGITAL VOCODER TYPE	AMBE++ OR SELP
16	DIGITAL PROTOCOL	ETSI-TS 102 361-1, 2 & 3
17	SENSITIVITY ANALOGUE	3.5 µV (12 DB SINAD), 0.22 µV (TYPICAL) (12 DB SINAD) 0.4 µV (20 DB SINAD)
	DIGITAL	5% BER : 0.3 µV
18	INTERMODULATION	65-70 DB
19	ADJACENT CHANNEL SELECTIVITY	60DB @ 12.5 KHZ 70 DB @ 20 / 25 KHZ
20	SPURIOUS REJECTION	70 DB
21	AUDIO POWER OUTPUT	3 W
22	AUDIO DISTORTION	@ RATED AUDIO 3% (TYPICAL)
23	AUDIO RESPONSE	+1 ~ -3 DB

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24	CONDUCTED SPURIOUS EMISSION	< -57 DBM
25	MODE	DUAL MODE (ANALOGUE + DIGITAL), SHOULD BE COMPATIBLE WITH MOTOROLA GP2000 & MD788G AS DIGITAL.
26	SCAN	ALLOWS TO MONITOR MULTIPLE CHANNELS AND RECEIVE CALLS.
27	ENCRYPTION	ENHANCE BUILT-IN VOICE AND DATA ENCRYPTION WITH KEY MANAGEMENT. ATLEAST RC41 AND PREFERABLY USER CUSTOMIZABLE 256 BITS AES
28	DATA COMMUNICATION	INTEGRATED DATA PORT COMPATIBLE WITH PC ALONG WITH REQUISITE SOFTWARE / DRIVERS
29	INTERFACE	FLEXIBLE, MENU-DRIVEN INTERFACE WITH USER-FRIENDLY ICONS AND AT LEAST TWO LINES OF TEXT FOR EASE OF READING TEXT MESSAGES.
30	INDICATOR	TRI-COLOUR LED INDICATOR FOR CLEAR, VISIBLE FEEDBACK OF CALLING, SCANNING AND MONITORING.
31	DISPLAY (MOBILE RADIO)	LARGE SIZE TFT COLOUR LCD DISPLAY STANDARD PACKAGE COMPRISING:- (A) RADIO WITH DISPLAY CONTROL HEAD (B) TRUNNION (C) CABLING (D) COMPACT MICROPHONE
32	BUTTONS	* LARGE, EASY TO USE NAVIGATION BUTTONS ALLOWS EASY ACCESS TO INITIATIVE MENU-DRIVEN INTERFACES. * PROGRAMMABLE BUTTONS FOR EASY ACCESS TO REQUIRED FEATURES SUCH AS ONE-TOUCH CALLING. * LARGE, TEXTURED PUSH-TO-TALK BUTTON. PROVIDES GOOD TACTILE RESPONSE AND EASY ACCESS, EVEN WHEN WEARING GLOVES.
33	SPEAKER	POWERFUL, FRONT PROJECTING SPEAKER
34	ANTENNA	COMPATIBLE BROADBAND ANTENNA ALONGWITH ATLEAST 100

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		FEET CABLE (LOW LOSS) WITH INTIGRATED GPS FACILITY.
35	SEALING	RATED IP54. PROTECTED AGAINST HARM FROM DUST OR WATER SPRAY.
OPTIONAL FEATURES		
36	GPS	INTEGRATED GPS (WITH GPS LOCATION TRACKING) GPS PERFORMANCE : -TTFF (TIME TO FIRST FIX) COLD START < 1 MINUTE -TTFF (TIME TO FIRST FIX) HOT START < 10 SECONDS - HORIZONTAL ACCURACY < 10 METERS
37	IP	MULTI SITE IP CONNECTION
38	SMS	ATLEAST 256 CHARACTERS
39	EMERGENCY BUTTON	TO ALERT SUPERVISOR OR DISPATCHER IN AN EMERGENCY SITUATION.

ACCESSORIES / MANUAL

40	OPERATING MANUAL	
41	SERVICE MANUAL	
42	FRONT CASE	PC + ABS
43	MICROPHONE	PALM MICROPHONE (OPTIONAL KEYPAD)
44	DESKTOP MICROPHONE	OPTIONAL
45	SPEAKER (EXTERNAL)	OPTIONAL
46	MOUNTING BRACKET	OPTIONAL
47	SOFTWARE & CABLE (PC TO RADIO)	OPTIONAL
48	CLONE CABLE	OPTIONAL

MISC

49	WARRANTY MINIMUM 02 YEARS	
50	SPARE & MAINTENANCE SUPPORT ATLEAST FOR 10 YEARS	
51	MILITARY STANDARDS : MIL-STD-810 C, D, E, F AND G STANDARDS FOR TEMPERATURE, SHOCK, VIBRATION, RAIN SALT FOG, DUST AND SAND, HUMIDITY AND SOLAR	
52	FIRMWARE CAPABLE TO SUPPORT "SERVER FUNCTIONALLY" FOR GPS TRACKING AND VOICE RECORDING FEATURES.	

WALKIE TALKIE (DIGITAL) SPECIFICATIONS : REPEATER

FAX MESSAGE

(HYTERA RD 988)

S NO	FEATURES	RANGE
1	OPERATING VOLTAGES	220 VAC, 13.6 VDC
2	POWER SUPPLY (EXTERNAL)	TO PROVIDE BACKUP FOR ATLEAST 10 MINS IN CASE OF MAIN FAILURE.(MUST BE HYTERA PS22002 OR DIMOND SD1732EW2).
3	FREQUENCY RANGE	VHF
4	NO OF CHANNELS	>16
5	CHANNEL SPACING	12.5/20/25 KHZ
6	OPEARTING TEMPERATURE	-20 °C TO +55 °C
7	STORAGE TEMPERATURE	-40 °C TO +85 °C
8	CURRENT DRAIN	STANDBY < 1.2 A TRANSMIT < 12 A
9	RF POWER OUTPUT	5-45 W (100% CONTINUOUS FULL DUTY CYCLE OPERATION)
10	FREQUENCY STABILITY (-20 °C TO +55 °C)	± 1.5 PPM
11	HUM AND NOISE	40 DB @ 12.5 KHZ 45 DB @ 20 / 25 KHZ
12	MODULATION LIMITING	± 2.5 KHZ @12.5 KHZ ± 4.0 KHZ @ 20 KHZ ± 5.0 KHZ @ 25 KHZ
13	CONDUCTED / RADIATED EMISSION	-36 DBM < 1 GHZ -30 DBM > 1 GHZ
14	ADJACENT CHANNEL POWER	60 DB @ 12.5 KHZ 70 DB @ 20/25 KHZ
15	DIGITAL VOCODER TYPE	AMBE++ OR SELP
16	BLOCKING	100DB
17	SENSITIVITY ANALOGUE	3.0 µV (12 DB SINAD), 0.22 µV (TYPICAL) (12 DB SINAD) 0.4 µV (20 DB SINAD)
	DIGITAL	5% BER : 0.3 µV
18	INTERMODULATION	65-70 DB
19	ADJACENT CHANNEL SELECTIVITY	60DB @ 12.5 KHZ 70 DB @ 20 / 25 KHZ
20	SPURIOUS REJECTION	70 DB
21	AUDIO POWER OUTPUT	0.5 W RATED
22	AUDIO DISTORTION	@ RATED AUDIO 3% (TYPICAL)
23	AUDIO RESPONSE	+1 ~ -3 DB
24	CONDUCTED SPURIOUS EMISSION	< -57 DBM
25	MODE	DUAL MODE (ANALOGUE + DIGITAL), SHOULD BE

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		COMPATIBLE WITH MOTOROLA GP2000 AND PD788G & MD788G AS DIGITAL.
	SUPPORT	
26	ENCRYPTION	ATLEAST RC41 AND PREFERABLY USER CUSTOMIZABLE 256 BITS AES.
	MULTICHANNEL	SUPPORT ATLEAST TWO SIMULTANEOUS VOICE OR DATA PATHS IN DIGITAL TDMA MODE.
27	DATA COMMUNICATION	INTEGRATED DATA PORT COMPATIBLE WITH PC ALONG WITH REQUISITE SOFTWARE / DRIVERS
28	INTERFACE	FLEXIBLE, MENU-DRIVEN INTERFACE WITH USER-FRIENDLY ICONS AND AT LEAST TWO LINES OF TEXT FOR EASE OF READING TEXT MESSAGES.
29	INDICATOR	COLOUR LED INDICATORS FOR CLEAR, VISIBLE STATUS INDICATION.
30	DISPLAY	LARGE SIZE TFT COLOUR LCD DISPLAY AND MENU NAVIGATION KNOB TO FACILITATE SERVICE AND MAINTENANCE.
31	BUTTONS	* PROGRAMMABLE BUTTONS FOR EASY ACCESS TO REQUIRED FEATURES SUCH AS ONE-TOUCH CALLING.
32	SEALING	RATED IP54. PROTECTED AGAINST HARM FROM DUST OR WATER SPRAY.
33	HEAT SINK	ALONGWITH THERMAL-CONTROLLED COOLING FAN
34	ANTENNA	COMPATIBLE TWO BROADBAND ANTENNAS ALONGWITH ATLEAST 150 FEET CABLE (LOW LOSS) EACH.
OPTIONAL FEATURES		
35	IP	MULTI SITE IP CONNECTION
36	RACK	COMPATIBLE WITH DESKTOP HOUSING
37	HANDLES	ERGONOMICS AND STURDY HANDLES TO MAKE HANDLING COMFORTABLE.

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38	MOBILE DUPLEXER	INTERNAL INSTALLATION
ACCESSORIES / MANUAL		
39	OPERATING MANUAL	
40	SERVICE MANUAL	
41	DESKTOP POWER SUPPLY	OPTIONAL
42	POWER CABLE	
43	MANAGEMENT SOFTWARE & CABLE (PC TO RADIO)	
44	MICROPHONE	PALM MICROPHONE (OPTIONAL KEYPAD)
45	DIRECTIONAL ANTENNA	OPTIONAL
46	DUPLEXER INSTALLATION KIT	OPTIONAL
47	MOUNTING BRACKET / KIT	OPTIONAL
MISC		
48	WARRANTY MINIMUM 02 YEARS	
49	SPARE & MAINTENANCE SUPPORT ATLEAST FOR 10 YEARS	
50	MILITARY STANDARDS : MIL-STD-810 C, D, E, F AND G STANDARDS FOR TEMPERATURE, SHOCK, VIBRATION, RAIN SALT FOG, DUST AND SAND, HUMIDITY AND SOLAR	
51	FIRMWARE CAPABLE TO SUPPORT "SERVER FUNCTIONALLY" FOR GPS TRACKING AND VOICE RECORDING FEATURES.	