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06.06.0000.215.49.25/Re-Eval

3February 2025

RE-EVALUATION OF THE SPECIFICATION OF RADIO SET MULTIBAND HF/VHF/UHF/MANPACK (MILITARY VERSION)

Reference:

- A. Army Headquarters, General Staff Branch, Infantry Directorate letter number 23.01.901.034.02. 026.01.08.02.02.25 dated 02 February 2025 (Not to all).
- 1. Please be informed that Bangladesh Army has planned to evaluate Radio Set HF/VHF/UHF/Manpack (Military Version). To facilitate this endeavor, interested vendors/firms/local agents of the manufacturers are requested to submit their offers directly to Army Headquarters, General Staff Branch, Infantry Directorate with an intimation to this office by 20 February 2025 fulfilling the requirements outlined below:
 - a. Offer as per technical specification. In this regard, blank approved technical specification is enclosed herewith.
 - b. Manual (Original Printed by Manufacture) and CD.
 - c. Catalogue (Original Printed by Manufacture) and CD.
 - d. Catalogue of Spare Parts (Original Printed by Manufacture) and CD.
 - e. Brochure (Original Printed by Manufacture) and CD.
 - f. Enlistment Certificate of DGDP and BTRC.
 - g. Certification from manufacturer on permission to export the said system to Bangladesh Army.
- 2. All the documents are to be submitted on Manufacture's/Principal's official pad including official stamp duly signed by proper authority.
- 3. Forwarded for your information and necessary action please.

MD ZAHIDUL KABIR

Major

For Director General

Enclosure:

Technical Specification-12 (Twelve) Pages Only.

Distribution: External:

Information:

Army Headquarters, General Staff Branch (Coordination)

Army Headquarters, General Staff Branch Weapon Equipment & Statistics Directorate

Army Headquarters, General Staff Branch Infantry Directorate

Army Headquarters
Master General of the Ordnance Branch
Ordnance Directorate

Action:

All Concerned Supplier/Firm

Internal:

IT Section (For uploading to website)

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GENERAL SPECIFICATION OF RADIO SET MULTIBAND HF/VHF MANPACK (MILITARY VERSION)

(a) (b) (c) Manufacturer	Γ		<u> </u>	
PART - 1: GENERAL SPECIFICATION			Tech Spec	To be filled up by Principal
1. Nomenciature Radio Set Multiband HF/VHF Manpack (Military Version) 2. Type of Radio Military Version Software Defined Radio (SDR) 3. Brand Name/Make To be mentioned 4. Model To be mentioned 5. Country of Origin Group A and B countries 6. Country of Manufacture Group A and B countries 6. Country of Manufacture With Countries 7. Country of Manufacture With Complete address (Addresses, Telephone, Fax, Email & Website) 10. Name of Manufacture with complete address (Addresses, Telephone, Fax, Email & Website) 11. Name of Principal with complete address (Addresses, Telephone, Fax, Email & Website) 12. Port of Shipment Must be from the country of Manufacturing/ Assembly. Trans-shipment not allowed 13. Colour Metallic Bronze (MB) Green ART - 2: TECH SPEC 14. Frequency Range HF (1.5-30 MHz): beyond 60 MHz is allowed 15. Frequency Band HF and VHF 16. Channel Bandwidth To be mentioned Number of Preset Memory Minimum 25. Specific memory channel is to be mentioned Number of Total Working To be mentioned Number of Total Working To be mentioned Communication Range (Manpack Tactical Communication) 17. Communication Security a. Encryption AES 256 or higher mode encryption must be available. Details to be mentioned Details to be mentioned Other Types of Security Any other types of communication Other Types of Security Any other types of communication Other Types of Security Any other types of communication Other Types of Security Any other types of communication		(b)	(c)	
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Serand Name/Make				
5. Details with remarked and become to be mentioned 5. Country of Origin			Military Version	
4. Model 5. Country of Origin 6. Country of Manufacture 7. Country of Assembly 8. Year of Manufacture 9. Name of Manufacture with complete address (Addresses, Telephone, Fax, Email & Website) 10. Name of Principal with complete address (Addresses, Telephone, Fax, Email & Website) 11. Name of Details to be mentioned 12. Port of Shipment 13. Colour 14. Frequency Range 15. Frequency Range 16. Channel Bandwidth 17. To be mentioned 18. To be mentioned 19. Must be from the country of Manufacturing/ Assembly. Trans-shipment not allowed 19. Trans-shipment not allowed 19. Trans-shipment not allowed 19. Frequency Range 19. Frequency Band 19. Channel Bandwidth 10. Channel Bandwidth 10. Channel Change Manufacturing/ To be mentioned 19. Channel 20. Channel 31. Colour 32. Colour 33. Colour 34. Frequency Band 35. Frequency Band 36. Channel Bandwidth 37. Channel Spacing 38. Number of Preset Memory Channel 39. Channel 30. Channel Transpacing 30. Number of Total Working 31. Channel 32. Channel 33. Colour 34. Frequency Band 35. Frequency Band 36. Channel Bandwidth 37. Channel Spacing 38. Number of Preset Memory Channel 39. Channel 40. Channel Spacing 41. To be mentioned 42. Channel Spacing 43. Number of Total Working 44. To be mentioned 45. Channel Spacing 46. Channel Spacing 47. Channel 48. Channel Spacing 49. Channel 49. Channel 40. Channel Spacing 40. Channel 40. Channel Spacing 40. Channel 41. To be mentioned 41. To be mentioned 42. Channel 43. Channel 44. Frequency Hopping 45. Specific memory Channel 46. Channel 47. Channel 48. Channel 49. Channel 40. Channel 40. Channel 41. To be mentioned 41. To be mentioned 41. To be mentioned 42. Channel 43. Channel 44. Frequency Hopping 45. Communication Security 46. Channel 47. Obert Types of Communication 48. Channel 48. Chan	<u>3.</u>	Brand Name/Make	To be mentioned	
S. Country of Manufacture 7. Country of Manufacture 9. Name of Manufacture with complete address (Addresses, Telephone, Fax, Email & Website) 10. Name of Principal with complete address (Addresses, Telephone, Fax, Email & Website) 11. Name of Local Agent with complete address (Addresses, Telephone, Fax, Email & Website) 12. Port of Shipment Must be from the country of Manufacturing/ Assembly. Trans-shipment not allowed 13. Colour Metallic Bronze (MB) Green 14. Frequency Range HF (1.5-30 MHz) 15. Frequency Band HF and VHF 16. Channel Spacing To be mentioned 17. Channel Spacing To be mentioned 18. Prequency Band HF and VHF 19. Number of Total Working Channel 19. Number of Total Working To be mentioned 10. Channel Spacing To be mentioned 11. Number of Total Working To be mentioned 12. Channel Spacing To be mentioned 13. Number of Preset Memory Channel is to be mentioned 14. Channel Spacing To be mentioned 15. Channel Spacing To be mentioned 16. Channel Spacing To be mentioned 17. Channel Spacing To be mentioned 18. Number of Preset Memory Channel is to be mentioned 19. Channel Spacing To be mentioned 10. Channel Spacing To be mentioned 11. Channel Spacing To the mentioned To be mentioned To be mentioned 12. Channel Spacing To the mentio	4.	Model		
6. Country of Manufacture 7. Country of Assembly 8. Year of Manufacture 9. Name of Manufacture with complete address (Addresses, Telephone, Fax, Email & Website) 10. Name of Principal with complete address (Addresses, Telephone, Fax, Email & Website) 11. Name of Local Agent with complete address (Addresses, Telephone, Fax, Email & Website) 12. Port of Shipment Must be from the country of Manufacturing/ Assembly. Trans-shipment not allowed 13. Colour Metallic Bronze (MB) Green 14. Frequency Range HF (1.5-30 MHz) VHF (30-60 MHz) is allowed 15. Frequency Band HF and VHF 16. Channel Bandwidth To be mentioned 17. Channel Spacing To be mentioned 18. Channel Spacing To be mentioned 19. Channel Country of Preset Memory Channel Channel Channel Monufacturity 19. Channel Spacing To be mentioned 20. Channel Spacing To be mentioned 21. Channel Spacing To be mentioned 22. Channel Spacing To be mentioned 23. Channel Spacing To be mentioned 24. Channel Spacing To be mentioned 25. Frequency Band HF and VHF 26. Channel Spacing To be mentioned 27. Channel Spacing To be mentioned 28. Channel Spacing To be mentioned 39. Channel Spacing To be mentioned 30. Channel Spacing To be mentioned 30. Channel Spacing To be mentioned 31. Channel Spacing To be mentioned 32. Channel Spacing To be mentioned 33. Channel Spacing To be mentioned 34. Channel Spacing To be mentioned 35. Channel Spacing To be mentioned 36. Channel Spacing To be mentioned 37. Channel Spacing To be mentioned 38. Channel Spacing To be mentioned 39. Channel Spacing To be mentioned 40. Channel Spacing To be mention	5.	Country of Origin		
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8. Year of Manufacture Not before the calendar year of the contract 9. Name of Manufacture with complete address (Addresses, Telephone, Fax, Email & Website) 10. Name of Principal with complete address (Addresses, Telephone, Fax, Email & Website) 11. Name of Local Agent with complete address (Addresses, Telephone, Fax, Email & Website) 12. Port of Shipment Must be from the country of Manufacturing/ Assembly. Trans-shipment not allowed Metallic Bronze (MB) Green 13. Colour Metallic Bronze (MB) Green 14. Frequency Range HF (1.5-30 MHz) VHF (30-60 MHz): beyond 60 MHz is allowed is allowed HF and VHF 15. Channel Bandwidth To be mentioned 16. Channel Spacing To be mentioned 17. Number of Preset Memory Channel Channel Channel of Total Working To be mentioned 18. Number of Total Working To be mentioned 18. Number of Total Working To be mentioned 18. Communication Range (Manpack Tactical Communication) 18. Plain Land Urban Area Hilly Area 19. Communication Security 19. Allowes of antennas 10. Communication Security 20. Communication Security 21. Any other types of communication on the contract of the contra	7.	Country of Assembly	Group A and B countries	
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b. Frequency Hopping Minimum 100 hops per minute. Details to be mentioned C. Other Types of Security Any other types of communication	a.	Encryption	must be available. Details to be	
c. Other Types of Security Any other types of communication	b.	Frequency Hopping	Minimum 100 hops per minute.	
security (if available) are to be mentioned	C.	Other Types of Security	Any other types of communication security (if available) are to be	CULTAN DEC

Ser	Fact/Description	Tech Spec	To be filled up by Principal/ Manufacturer
a)	(b)	(c)	(d)
2)	(2)		
3.	Dimension (W x D x H) a. Without antenna b. With antenna	To be mentioned. Picture is to be provided	
24.	Weight of the Radio set (At Functional Condition)	Maximum 8 kg with all accessories in operational condition. Details to be mentioned	
25.	Power Supply System	a. Must be operated from DC rechargeable and replaceable battery. Detail of brand, model, country of manufacture and battery rating are to be mentioned b. The battery charger should have charging facility from AC power 220 VAC ± 20% at 50 Hz. Charging from solar charger at ambient light (optional) c. 01 Set additional rechargeable battery to be provided	-
26.	Battery-life/Operating Hours	≥ 8 hours of continuous operation (at high power and full duplex voice, RX: TX 9:1)	
	Transcriver		
27.	O	Minimum 20 watt	
	a. RF Power Output	Minimum 100 watt by amplifier	
	b. Power Modes	Scalable Power Output modes are to be available. Details to be mentioned	
	c. Modulation Type	All modulation types are to be specified with required technical data	
	d. RF Input Impedance	To be mentioned	
	e. Receiver Sensitivity	To be mentioned	
	f. AF Output	Details to be mentioned	
	g. Squelch Type	Details to be mentioned	
	b Types of Waveforms	Details to be mentioned	
28.	Programming Software (Too	ols kit, Laptop etc)	
	a. Programing Kit along with Software (Perpetual License)	To be provided	
	h Tool Kit/Fill Gun	To be provided (if available)	
29	c. Requirement of Laptop PDA, Android Devices etc (Optional)	To be mentioned (if required)	
	a. Auto Re-broadcasting/ data relaying / retransmission facility	To be possible. Details to be mentioned. Each set in a radio network must be capable of providing auto rebroadcasting/ retransmission and data relaying facility independently Minimum 100 kbps. Details to be	
	b. Data Communication	mentioned	
	c. Built in Test (BITE)	To be available To be mentioned	
	d. Instant Messaging	To be memoried	
	Facility	To be available	
	e. GPS Facility	To be available To be available	
	f. CNR Facility	TO DE AVAIIABLE	CENERAL DEFEN
30	O. Optional Features Battle Management System	Support BMS (Battlefield Management System or similar)	DGDR

Ser	- acasescription	Tech Spec	To be filled up by Principal Wanufacturer
(a)	(b)	(c)	(d)
31.	One water wildt		\-/
31.	The state of the s		
	a. Operating Temperature	-10° C to +55° C	
	b. Storage Temperature c. Humidity Permissible	-20° C to +60° C	
	c. Humidity Permissible Condition for Operation	Maximum 95%	
	d. Operation during Fog Rain and Snow	To be possible	
32.	Environmental Standards		
	a. Shock/Drop Proof	Military Charles 1949 C	
	b. Water/Immersion Proof	Military Standard 810 G or higher	
	c. Dust Proof		
	d. Vibration Proof	_	
	e. Temperature Proof		
	Competatore Floor	As per operating and storage	
33.	List of Standard	temperature	
<i>7</i> 0.	Accessories	Price to be quoted separately Item	
	Accessories	wise	
34.	List of Optional	- Di	
′T·	List of Optional Accessories	Price to be quoted separately Item	
ļ	Accessories	wise	
_	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<u> </u>	
	Warranty	2 (Two) Years	
	After Sales Service	5 (Five) Years	
7.	Model Validity	Minimum 8 (Eight) years from	
-		signing of contract	
8.	Any other	If any item not specifically	· · · · · · · · · · · · · · · · · · ·
-		mentioned above but required	
ł		technically for full range of	
		operation, the bidder should specify	•
- 1		and quote such item(s) in their offer.	
	1	In case of failure to specify and	
- 1		quote, the bidder must provide such	
		items free of cost	
IRT	- 3: TRAINING REQUIREME	NT	
). ∤≀	Jser Training	To be provided (As per requirement	
- -		of Signals & EME Directorate)	
). (Operations, Repair and	To be provided (As per requirement	
1	viairiteriance i raining	of Signals & EME Directorate)	
. [li	nventory Management	To be provided (As per requirement	
_ _	raining	of Ordnance Directorate)	
. F	Publication on Training	To be provided	
RT	- 4: REPAIR AND MAINTENA	ANCE REQUIREMENT LESS LIST OF SP	ADEO
E	Books & Publication	THE WORKENIEW LESS LIST OF SP.	ARES
а	. Owners/Operations manual	To be provided (As per requirement	
ir	English (Book Type)	of Signals & EME Directorate)	
ir	ncluding CD/DVD)	of Olghais & Elvie Directorate)	
Ь	Workshon/Repair manual incl	To be provided to	
d	etail schematic and circuit	To be provided (As per requirement	
ď	etail schematic and circuit iagram in English (Book Type)	of Signals & EIVIE Directorate)	
in	cluding CD/DVD	· ·	
1			
		To be provided (As per requirement	
12	pare parts catalogue in i	of Signals & EME Directorate)	
	nglish (Book Type) including l	·	
	D/DVD)		
C	<u> </u>	To be provided (As per requirement	
d.	Complete and updated	. o se brovided (V2 bei ledditettieut)	
d. m	aster spare parts price	of Signals & EME Directorate)	
d. m	aster spare parts price datalogue / list in English	of Signals & EME Directorate)	
d. m ca (B	aster spare parts price ditalogue / list in English ook Type) including	of Signals & EME Directorate)	
d m ca (B	aster spare parts price data	of Signals & EME Directorate)	THERM DECE

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Ser	Fact/Description	Tech Spec	To be filled up by Principal/ Manufacturer	
(a)	(b)	(c)	(d)	
PAR	T - 5: LIST OF SPARES			
44.	List of standard spare parts, tools and accessories	To be provided (As per requirement of Signals & EME Directorate)		
PΔR	T - 6: TOOL LIST FOR DIFFER	RENT LEVEL OF MAINTENANCE		
45.	a. Analyser, Measuring Testing/ Fault finding and	To be provided (As per requirement of Signals & EME Directorate)		
	(CCT)	To be provided (As per requirement of Signals & EME Directorate)		
	c. Special Service Materials (SSM)	To be provided (As per requirement of Signals & EME Directorate)		
PART – 7: FINANCIAL SPECIFICATION				
46.		To be mentioned		



GENERAL SPECIFICATION OF RADIO SET MULTIBAND VHF/UHF MANPACK (MILITARY VERSION)

		<u>VEROION)</u>	
Ser	. acc accompany	Tech Spec	To be filled up by Principal/ Manufacturer
(a)	(d)	(c)	(d)
PAF	RT - 1: GENERAL SPECIFICA	<u> TION</u>	
1.	Nomenclature	Radio Set Multiband VHF/UHF Manpack (Military Version)	
2.	Type of Radio	Military Version Software Defined Radio	
3.	Brand Name/Make	To be mentioned	
4.	Model	To be mentioned	
5.	Country of Origin	Group A and B countries	
6.	Country of Manufacture	Group A and B countries	
7.	Country of Assembly	Group A and B countries	
8.	Year of Manufacture	Not before the calendar year of the	
-		contract	
9.	Name of Manufacture with complete address		
	(Addresses, Telephone, Fax, Email & Website)		
10.		Details to be mentioned	
	complete address		
	(Addresses, Telephone, Fax, Email & Website)		
11.	Name of Local Agent with		
	complete address		· · · · · · · · · · · · · · · · · · ·
	(Addresses, Telephone, Fax, Email & Website)		• • •
12.	Port of Shipment	Must be from the country of	
ĺ	·	Manufacturing/	ı
1		Assembly. Trans-shipment not	
		allowed	
13.	Colour	Metallic Bronze (MB) Green	· · · · · · · · · · · · · · · · · · ·
	T - 2 : TECH SPEC	I Moterillo Bronzo (MB) Creen	
	Frequency Range	VHF (30-108 MHz): beyond 108	
	. requeries range	MHz is allowed	
j			
15	Frequency Band	UHF (225 MHz-2 GHz)	<u> </u>
		UVF and UHF	
	Channel Bandwidth	To be mentioned	
	Channel Spacing	To be mentioned	
18.	Number of Preset Memory	Minimum 25. Specific memory	
	Channel	channel is to be mentioned	
	Number of Total Working	To be mentioned	
19.	Channel	İ	
	Communication Range (Mant	pack Tactical Communication)	
20.	141	Plain Land Urban Area Hilly	
		Area	<i>.</i>
Ī	Minimum Range	To be mentioned	Ì
	Antenna Type	Details to be mentioned with various	<u> </u>
		types of antennas	- ;
22. [Communication Security		
a	a. Encryption	AES 256 or higher mode encryption	
		must be available. Details to be	
 -		mentioned	
	o. Frequency Hopping	Minimum 100 hops per minute. Details to be mentioned	-
(c. Other Types of Security	Any other types of communication	
	• •	security (if available) are to be	
		mentioned	CENERAL DEFE

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F:\(\text{1.}\) CURRENT\(\text{1.}\) EVAL & STD\(\text{Eval}\) Of SIG SET\(\text{Tech}\) Spec for Inf Dte\(\text{3.}\) VHF+UHF.doc

Ser	Fact/Description	Tech Spec	To be filled up by Principal/ Manufacturer
(a)	(b)	(c)	(d)
23.	Dimension (W x D x H) a. Without antenna b. With antenna	To be mentioned. Picture is to be provided	
24.	Weight of the Radio set (At Functional Condition)	Maximum 8 kg with all accessories in operational condition. Details to be mentioned	
25.	Power Supply System	a. Must be operated from DC rechargeable and replaceable battery. Detail of brand, model, country of manufacture and battery rating are to be mentioned b. The battery charger should	
		have charging facility from AC power 220 VAC ± 20% at 50 Hz. Charging from solar charger at ambient light (optional) c. 01 Set additional rechargeable	
26.	Battery-life/Operating Hours	battery to be provided ≥ 8 hours of continuous operation (at high power and full duplex voice, RX: TX 9:1)	
27.	Transceiver	IV. IV 9.1/	
۷1.	a. RF Power Output	Minimum 20 watt	
	b. Power Modes	Scalable Power Output modes are to be available. Details to be mentioned	
	c. Modulation Type	All modulation types are to be specified with required technical data	
1	d. RF Input Impedance	To be mentioned	
ļ	e. Receiver Sensitivity	To be mentioned	
	f. AF Output	Details to be mentioned	
1	g. Squelch Type	Details to be mentioned	
	h. Types of Waveforms	Details to be mentioned	
28.	Programming Software (Tool		
	a. Programing Kit along with Software (Perpetual License)		
	b. Tool Kit/Fill Gun	To be provided (if available)	
	c. Requirement of Laptop, PDA, Android Devices etc. (Optional)	To be mentioned (if required)	,
29.	Mandatory Features		
	a. Auto Re-broadcasting/ data relaying / retransmission facility	To be possible. Details to be mentioned. Each set in a radio network must be capable of providing auto rebroadcasting/retransmission and data relaying facility independently	
,	b. Data Communication	Minimum 100 kbps. Details to be mentioned	
	c. Built in Test (BITE)	To be available	the Artist Control of
	d. Instant Messaging Facility	To be mentioned	
	e. GPS Facility	To be available.	
	f. CNR Facility	To be available	CNFRA DEAC
30.	Optional Features	Compat DMS /Dattestald	
	Battle Management System	Support BMS (Battlefield Management System or similar)	PGDP **

2 RESTRICTED

41 -

(a) 2. Derating/Stopage Condition a. Operating Temperature b. Storage Temperature c. Humfülty Permissible Cendition for Operation d. Operation during Fog. Rain and Snow 2. Environmental Standards a. Shock/Drop Proof b. Water/Immersion Proof c. Dust Proof d. Vibration Proof d. Vibration Proof e. Temperature Proof d. Vibration Proof d.	Ser	Fact/Description	Tech Spec	To be filled up by Principal/ Manufacturer
Aperating/Storage Condition a. Operating/Storage Temperature a.0° Ct o +55° C b. Storage Temperature a.0° Ct o +55° C c. How Storage Temperature a.0° Ct o +56° C c. How Storage Temperature a.0° Ct o +60° C c. Condition for Operation d. Operation during Fog. Rain and Snow d. Operation during Fog. Rain and Snow d. Operation Proof d. Environmental Standards a. Shock/Droe Proof d. Weration P	(a)	(b)	(c) .	AT ALL AND A STATE OF THE ADDRESS OF
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Ser	Fact/Description	Tech Spec	To be filled up by Principal/ Manufacturer		
(a)	(b)	(c)	(d)		
PAR	T – 5: LIST OF SPARES				
44.	List of standard spare parts, tools and accessories	To be provided (As per requirement of Signals & EME Directorate)			
PAR	T – 6: TOOL LIST FOR DIFFER	RENT LEVEL OF MAINTENANCE			
45.	a. Analyser, Measuring Testing/ Fault finding and Diagnostic set	To be provided (As per requirement of Signals & EME Directorate)			
	b. Special Service Tools (SST)	To be provided (As per requirement of Signals & EME Directorate)			
	c. Special Service Materials (SSM)	To be provided (As per requirement of Signals & EME Directorate)			
PAR	PART – 7: FINANCIAL SPECIFICATION				
46.	Financial implication/ Specification	To be mentioned			



GENERAL SPECIFICATION OF RADIO SET MULTIBAND HF/VHF/UHF MANPACK (MILITARY VERSION)

Se	r Fact/Description	Tech Spec	To be filled up by Principal/ Manufacturer
(a)		(c)	(d)
PA	RT – 1: GENERAL SPECIFICA	TION	i
1.	Nomenclature	Radio Set Multiband HF/VHF/UHF Manpack (Military Version)	A
2.	Type of Radio	Military Version Software Defined Radio (SDR)	
3.	Brand Name/Make	To be mentioned	
4.	Model	To be mentioned	5
5.	Country of Origin	Group A and B countries	
6.	Country of Manufacture	Group A and B countries	
7.	Country of Assembly	Group A and B countries	
8.	Year of Manufacture	Not before the calendar year of the contract	
9.	Name of Manufacture with complete address (Addresses, Telephone, Fax, Email & Website)		
10.	complete address (Addresses, Telephone, Fax, Email & Website)		
11.	Name of Local Agent with complete address (Addresses, Telephone, Fax, Email & Website)		
12.	Port of Shipment	Must be from the country of Manufacturing/ Assembly. Trans-shipment not allowed	; >-
13.	Colour	Metallic Bronze (MB) Green	
	RT - 2 : TECH SPEC	I Metalilo Biolize (IMB) Creen	
	Frequency Range	HF (1.5-30 MHz) VHF (30-60 MHz): beyond 60 MHz is allowed UHF (225 MHz-2 GHz)	
15.	Frequency Band	HF, VHF and UHF	
16.	Channel Bandwidth	To be mentioned	
-	Channel Spacing	To be mentioned	
18.	Number of Preset Memory Channel	Minimum 25. Specific memory channel is to be mentioned	
19.	Number of Total Working Channel	To be mentioned	
	Communication Range (Many	pack Tactical Communication)	
20.		Plain Land Urban Area Hilly Area	
	Minimum Range	To be mentioned	
21.	Antenna Type	Details to be mentioned with various types of antennas	
22.	Communication Security		
	a. Encryption	AES 256 or higher mode encryption must be available. Details to be mentioned	1
	b. Frequency Hopping	Minimum 100 hops per minute. Details to be mentioned	
	c. Other Types of Security	Any other types of communication security (if available) are to be	GENERAL DESERVA

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Ser	Fact/Description	Tech Spec	To be filled up by Principal/ Manufacturer
(a)	(b)	(c)	(d)
		mentioned	•
23.	Dimension (W x D x H) a. Without antenna b. With antenna	To be mentioned. Picture is to be provided	ř
24.	Weight of the Radio set (At Functional Condition)	Maximum 8 kg with all accessories in operational condition. Details to be mentioned	
25.	Power Supply System	a. Must be operated from DC rechargeable and replaceable battery. Detail of brand, model, country of manufacture and battery rating are to be mentioned	
		b. The battery charger should have charging facility from AC power 220 VAC ± 20% at 50 Hz. Charging from solar charger at ambient light (optional) c. 01 Set additional rechargeable	· · · · · · · · · · · · · · · · · · ·
		battery to be provided	
26.	Battery-life/Operating Hours	≥ 8 hours of continuous operation (at high power and full duplex voice, RX: TX 9:1)	
27.	Transceiver		
	a. RF Power Output	Minimum 20 watt Minimum 100 watt by amplifier	
	b. Power Modes	Scalable Power Output modes are to be available. Details to be mentioned	
	c. Modulation Type	All modulation types are to be specified with required technical data	*
	d. RF Input Impedance	To be mentioned	
	e. Receiver Sensitivity	To be mentioned	3.
	f. AF Output	Details to be mentioned	· ·
	g. Squeich Type	Details to be mentioned	
	h. Types of Waveforms	Details to be mentioned	
28.	Programming Software (Tool	s kit, Laptop etc)	
	a. Programing Kit along with Software (Perpetual License)	To be provided	
	b. Tool Kit/Fill Gun	To be provided (if available)	
	c. Requirement of Laptop, PDA, Android Devices etc. (Optional)	To be mentioned (if required)	
29.	Mandatory Features		
	Auto Re-broadcasting/ data relaying / retransmission facility	To be possible. Details to be mentioned. Each set in a radio network must be capable of providing auto rebroadcasting/ retransmission and data relaying facility independently	
	b. Data Communication	Minimum 100 kbps. Details to be mentioned	
	c. Built in Test (BITE)	To be available	
	d. Instant Messaging Facility	To be mentioned	. I
	e. GPS Facility	To be available	THERM DESC.
	f. CNR Facility	To be available	(Francisco)
30.	Optional Features		
	Battle Management System	Support BMS (Battlefield Management System or similar)	E PGDPM

Ser	Fact/Description	Tech Spec	To be filled up by Principal/ Manufacturer
(a)	(b)	(c)	(d)
31.		1	<u>'</u>
	a. Operating Temperature	-10° C to +55° C	
	b. Storage Temperature	-20° C to +60° C	
	c. Humidity Permissible	Maximum 95%	
1	Condition for Operation		
	d. Operation during Fog,	To be possible	NAME OF THE PERSON OF THE PERS
ļ	Rain and Snow		
32.	Environmental Standards		
	a. Shock/Drop Proof	Military Standard 810 G or higher	
	b. Water/Immersion Proof	_	
	c. Dust Proof		
	d. Vibration Proof		•
ļ	e. Temperature Proof	As per operating and storage temperature	
33.		Price to be quoted separately Item	
	Accessories	wise	
-	11		
34.	List of Optional	Price to be quoted separately Item	
	Accessories	wise	
25	Morrowhy		
	Warranty After Sales Service	2 (Two) Years	
37.		5 (Five) Years	
37.	Model Validity	Minimum 8 (Eight) years from	
38.	Any other	signing of contract	
30.	Any other	If any item not specifically	'
}		mentioned above but required technically for full range of	-
İ		technically for full range of operation, the bidder should specify	-
1		and quote such item(s) in their offer.	
	_	In case of failure to specify and	
		quote, the bidder must provide such	
		items free of cost	
PAR	T – 3: TRAINING REQUIREME	NT	
39.	User Training	To be provided (As per requirement)	
00.	Cool Halling	To be provided (As per requirement of Signals & EME Directorate)	
40.	Operations, Repair and	To be provided (As per requirement	
	Maintenance Training	of Signals & EME Directorate)	
41	Inventory Management	To be provided (As per requirement	
	Training	of Ordnance Directorate)	
42.	Publication on Training	To be provided	
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	including CD/DVD		1
	c. 100% Updated master	To be provided (As per requirement	
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	English (Book Type) including		į
	CD/DVD)		
	d. Complete and updated	To be provided (As per requirement	
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Ser	Fact/Description	Tech Spec	To be filled up by Principal/ Manufacturer		
(a)	(b)	(c)	(d)		
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44.	List of standard spare parts, tools and accessories	To be provided (As per requirement of Signals & EME Directorate)			
PAR	T - 6: TOOL LIST FOR DIFFER	RENT LEVEL OF MAINTENANCE			
45.	 a. Analyser, Measuring Testing/ Fault finding and Diagnostic set 	To be provided (As per requirement of Signals & EME Directorate)			
	b. Special Service Tools (SST)	To be provided (As per requirement of Signals & EME Directorate)			
	c. Special Service Materials (SSM)	To be provided (As per requirement of Signals & EME Directorate)			
PAR	PART - 7: FINANCIAL SPECIFICATION				
46.	Financial implication/ Specification	To be mentioned			

