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Chaitra 1430 March 2024

06.06.0000.215.49.23/Std

RE-EVALUATION OF THE SPECIFICATION OF RADIO SET HIGH FREQUENCY (HF) MEDIUM RANGE (VEHICLE & BASE STATION VERSION), VERY HIGH FREQUENCY (VHF) MEDIUM RANGE (VEHICLE & BASE STATION VERSION) AND VERY HIGH FREQUENCY (VHF) MANPACK

Reference:

- Army Headquarters, General Staff Branch, Signal Directorate letter number 23.01.901.032.03.099.01.20.03.24 A. dated 20 March 2024 (Not to all).
- In light of above reference, a technical specification of Radio Set High Frequency (HF) Medium Range (Vehicle & Base Station Version), Very High Frequency (VHF) Medium Range (Vehicle & Base Station Version) and Very High Frequency (VHF) Manpack is attached with this letter. Interested authorized vendors/firms/local agents of the manufacturers are requested to submit your offer for above mentioned Radio Set High Frequency (HF) Medium Range (Vehicle & Base Station Version), Very High Frequency (VHF) Medium Range (Vehicle & Base Station Version) and Very High Frequency (VHF) Manpack directly to Army Headquarters, General Staff Branch, Signal Directorate with intimation to this office by 20 April 2024 fulfilling the requirements mentioned bellow:
 - Offer as per technical specification.
 - Letter of authorization by Manufacturer/Principal mentioning that the said company will be the local h. vendor/agent for offered model.
 - Manuals (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 Directorate General Defence Purchase and BTRC. g.
 - Valid Certificate from Original Equipment Manufacturer (OEM) as authorized agent. h
 - Certification from manufacturer on permission to export the said system to Bangladesh Army. j.
- All the documents are to be submitted on Manufacture's/Principal's official pad including official stamp with signed by proper authority.
- Forwarded for your information and necessary action please. 3.

RAIHAN RAHMAN

Major

For Director General

Enclosure:

Technical Specification-24 (Nine) Pages Only. 1.

Distribution:

External:

Information:

Army Headquarters, General Staff Branch (Coordination)

Army Headquarters, General Staff Branch, Weapon Equipment & Statistics Directorate

Army Headquarters, General Staff Branch, Signal Directorate

Action:

All Concerned Supplier/Firm

Internal:

IT Section (For uploading to website)

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ANX A TO B of O RE-EVAL OF TECH SPEC OF HF MED RNG VHF MED RNG AND VHF MANPACK DT 28 FEB 2024

GENERAL SPECIFICATION OF RADIO SET HIGH FREQUENCY MEDIUM RANGE (BASE STATION VERSION) (MILITARY VERSION)

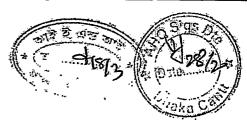
	Fact/Description	90, 90, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12	
Ser		Technical Specification	To be filled up by principal/ manufacturer
(a)	(b)	(c)	(d)
	RT 1: GENERAL SPECIFICATION		
1,	Nomenclature	Radio Set HF (Medium Range) (Vehicle and Base Station Version) (Military Version)	
2.	Type of Radio	Military version (Base Station 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 Manufacturer with complete address (Addresses, Telephone, Fax, Email & Website)	Details to be mentioned	
10.	Name of Principal with complete address (Addresses, Telephone, Fax, Email & Website)	Details to be mentioned	
11.	Name of Local Agent with complete address (Addresses, Telephone, Fax, Email & Website)	Details to be mentioned	
12.	Port of Shipment	Must be from the country of Manufacturing/Assembly. Trans-shipment not allowed	
13.	Color	Metallic Bronze (MB) Green	
PAR	2: TECHNICAL SPECIFICATION		
14.	Frequency Range	1.6 MHz-30 MHz. Below 1.6 MHz and above 30 MHz are allowed	
15.	Frequency Band	HF	
16.	Channel Bandwidth	To be mentioned	
17.	Channel Spacing	To be mentioned	
18.	Number of Preset Memory	Minimum 50. Specific memory channel is to	
	Channel	be mentioned	
19.	Number of Total Working Channel	To be mentioned	
	Tactical Communication Range		
20.	Static	All Over Bangladesh	
	On the Move (Base to Vehicle)	Minimum 20 km both in Urban & Hilly Area	
	Antenna Type	Broad band antenna is preferable. Details of all types of antennas to be mentioned	SCHERN DEFENCE
	Antenna Tuning Unit (ATU)	To be mentioned	
	Communication Security		DGDP
	a. Encryption	AES 256 or higher mode encryption must be available. Details to be mentioned	12 /*//
ľ	b. Frequency Hopping	Minimum 100 hops per minute. Details to be mentioned	THY OF DESIGNATION OF THE PARTY
	c. Other Types of Security	Any other types of communication security	10 Sins 00
		A-1 63.95	

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D.ISIGS-03. COM-0312. Re-Eaval Board Radio SettBofO for Gen Spec of Radio Set on 27:02.24lAnx A., B, C, D. & Ell. Anx A. HF Med Rng Base Stawer Ford Company of the Company of

Ser		Technical Specification	To be filled up by principal/ manufacturer			
(a)	(b)	(c)	(d)			
0.1	(Optional)	(if available) are to be mentioned				
24.	Dimension (W x D x H) (Without Antenna)	To be mentioned. Picture is to be provided				
25.	Weight of the Radio set (Complete at Functional Condition)	To be mentioned				
26.	Power Supply System	a. Must be operated from both AC (220 VAC ± 20% at 50 Hz) and 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 ± 20%. Charging from solar charger at ambient light (optional)				
27.	T	ortanger at artiblent light (optional)	_			
21.	Transceiver	F 20 - 52 - 52 - 52 - 52 - 52 - 52 - 52 -				
	a. RF Power Output	(1) Min: 25 W or below (2) Max: 100 W or above (3). Radio set must qualify in both the above parameters.				
	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					
	e. Receiver Sensitivity	To be mentioned				
	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 (Tools 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 (Optional)	To be mentioned (if required)				
29.	Mandatory Features					
İ	a. Automatic Link	Available (3G ALE or above)				
	Establishment (ALE)	Available (30 ALE of above)				
Ţ	b. Data Communication	Minimum 100 kbps. Details to be mentioned				
ſ	c. Built in Test (BITE)	To be available				
Ī	d. Instant messaging Facility	To be mentioned				
	e. GPS Facility	To be available				
}	f. SDR Facility					
ŀ		To be available and details to be provided				
Ļ	g. CNR Facility	To be available				
	h. Remote Control Facility	Minimum 100 meter (wired/wireless)				
30.	Optional Features					
	a. IP Interfacing facility with Field Exchange	To be available and details to be mentioned				
ſ	b. Battle management	Support BMS (Battlefield Management System) or similar standards	CILIERAL DEFEN			
31.	Operating/ Storage Condition	Cyclenty of Similar Standards				
Γ		-10° C to +55° C	- BODD SIL			
		- 20° C to + 60° C				
ľ	11 112	Maximum 95%	*\\\			
-	Condition for Operation	MANUALLI 2070	The state of the s			
		To be possible	700			
		A-2 RESTRICTED TO 27.02.74IANX.A.B. C.D & FII. ANX A - HF Med Rng Base Sta. Version doc) (CENT)			

Ser	Fact/Description			Technical Specification				To be filled up by	
(a)		(b)		(c)		principal/ manufacturer (d)			
X=/	and s	Snow		(c)				(a)	
32,		ronmental Standards	<u> </u>		·			-	
, ,		in/Splash Proof							
		ist Proof	Military S	tandard 810 F or h	laher			<u> </u>	
		pration Proof	.,,,,,,,,,,,		ngi ici				
		mperature Proof	As per or	perating and storag	e Temn	erature			
33.		of Standard Accessories						s are to be offered	
00.	4.00	or Grandara Processories	as standa	o pe memoned) L	ollowing	Helli/Acce	essorie	s are to be offered	
		Bill of Qu		terial (BOQ /BOM)	of Star	dard Iton	nie		
	Ser	Egpt Name/ Nomencla	ature	Part No	Qty	Count		Rmks	
				J.F. Teat No.	Giy	Manufa		TAILUKS.	
	ā.	Transceiver (Including Al	E, BITE,		 	TANCHICITE	olui G		
Ì		ATU and Instant Messagir	ng Facility				,		
1	L	etc)	io						
]	_b.	Radio Earthing							
1	C,	Handset		• * :•:					
	ď.	Antenna (Two different Ante		ir.					
	İ	given as Standard Item)	complete	tar _{ing}					
	<u> </u>	with accessories		. 3					
ſ	e.	Antenna Mast (One Antenn							
		be given in Standard item)	complete	1.					
	<u> </u>	with accessories		-					
	f.	Power Supply System							
		(1) AC Power Supply Com	plete with		1				
İ	i	cables	1-1						
İ		(2) DC Power Supply Com	piete with	÷]]				
			nargeable	<u> </u>					
İ		Maintenance Free Battery	minimum						
}	ĺ	120 AH) (02 Nos) with	charding				İ		
		facility (Battery charger). A	ceptable				ļ		
- 1		from local source	oop.cap.c	ş			l		
	g.	Programming Kit alon	g with						
İ	`	Software (Perpetual Licens	e and to	٩			ł		
	Ĺ	be offered in 10:1 ratio)	İ						
	h.	GPS Facility with Accessorie	is:	k					
				¥					
	j.	Data Communication faci							
		Accessories (Data Transfer					ĺ		
		similar, To be offered in 10:1 ra	itio)	h.			- !		
	k.	Tool Kit/Fill Gun (if availab	1-1						
	٨.	accessories (To be offered		441					
		ratio)	111 1:0, 1	*					
	1.	Carrying Bag (To be offere	d as per					GENERAL DES	
	**	requirement)	u as per				iX.		
	m.	Required cables, connect	ors and	<u> </u>			114	DGDP I	
		associated accessories	200				₩,	*\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
							1	MISTRY OF DESCRIPTION	
34.	List of	Optional Accessories		(Details to be mer	itioned)	Following	Item/A	ccessories are to	
				be offered as option	onal:	•			



Ser		Fact/Description	T	echnical Spec	ification	on	To be filled upby		
(a)		(b)		(c)			principal/ manufacturer		
			tity/Wafe	rial (BOQ /BO	VI) of (Infigual for	(d)		
	Ser	Eqpt Name/Nomenclatu	re	Part No	Qty	Country of Manufacture	Rmks		
	a. b.	Handset Radio Earthing							
	C.	Programming Software							
	d.	Data Communication facili Accessories (Data Transfer (similar to be offered)	Cable or						
	f.	Laptop (To be offered in 10:1 ra BMS (Battlefield Management or similar)	atio) : System						
	g.	Case/Transit Case	portation						
	h.	Interface cable with Field Excha	ange						
	<u> </u>	Any others to be mentioned		<u> </u>	<u> </u>				
35.	Warra			wo) Years					
36.		Sales Service		ve) Years					
37.	INIOGE	Validity	Mini	mum 8 (Eight)	years f	rom signing c	of		
38.	Any of	her	cont		4				
J.J.	1 1119 00	1163	lit a	ny item not s re but required	pecifica	ally mentione	d		
			rano	e of operation,	the s	uloplier shoul	n		
			spec	ify and quote	such i	tem(s) in the	ir		
D _V V D	T_ 2 · Tr	RAINING REQUIREMENT	offer	·			<u></u>		
39.		raining REQUIREMENT	- 	har maradal as es					
Oğ;	Cael I	raning	10	be provided (A	s per r	equirement o	of		
40.	Operat	tions, Repair and Maintenar		Signals & EME Directorate)					
	Trainin	g		To be provided (As per requirement of Signals & EME Directorate)					
41.		ory Management Training	To	To be provided (As per requirement of					
	Į.	-	Orc	Ordnance Directorate)					
42.	Publica	ation on Training	To	nrovided					
<u>PAR</u> 43.	1-4: RE	PAIR AND MAINTENANCE RE	QUIREM	ENT LESS LIS	T OF S	SPARES			
4 0.	BOOKS	& Publication							
	TOOCK	ners/ Operations manual in Engl Type) including CD/DVD)	Sigi	nals & EME Dir	ectoral	te)	ļ		
	schema (Book T	atic and circuit diagram in Eng Type) including CD/DVD	tail To lish Sigi	provided (As nais & EME Dir					
	catalog	% Updated master spare pa ue in English (Book Typ ng CD/DVD)		pe provided (As nals & EME Dire					
	d. Con parts p	oplete and updated master spa price catalogue / list in Engli		To be provided (As per requirement of Signals & EME Directorate)					
ים אם	(DOOK	Type) including CD/DVD)							
44.		T OF SPARES standard spare parts, tools and	F_ 3	o provident to					
• •	access	ories	101	pe provided (As	per re	equirement o	f		
PART	-6 TOO	L LIST FOR DIFFERENT LEVE	L OF MA	als & EME Dire	cuorat	e)			
45.	a. Analy	yzer, Measuring Testing/Fault		e provided (As	per re	allirement of	CANE PALOGO		
	finding	and Diagnostic set	Sign	als & EME Dire	ectorate	aairennenir ol			
		ial Service Tools (SST)	Tot	e provided (As als & EME Dire	per re	guirement of	DGDP		
	c. Spec	ial Service Materials (SSM)	Tot	e provided (As als & EME Dire	per re	quirement of	*\/\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
PART	-7: FINA	NCIAL SPECIFICATION	1 Sign	A FINE DIE	ښين <u>من</u>	=/	THOTAY OF DEFENSE		
		al Implication/ Specifications	Tob	e mentioned			- 10 3 5 0 N		
			RES	A-4	35 (2 2x (2)	disp	*) (* (Date Odly) =)		
		aval Board Radio SetiBolO for Gen Spoc of Radio Set on 27,0	z.241Anx A, B, C,	D.&.Elf, Anx A - HF Med Rift	g Base Sta V	ersion.doc	alia Coll		

ANX B TO B of O RE-EVAL OF TECH SPEC OF HF MED RNG VHF MED RNG AND VHF MANPACK DT 7% FEB 2024

GENERAL SPECIFICATION OF RADIO SET HIGH FREQUENCY MEDIUM RANGE (VEHICLE VERSION) (MILITARY VERSION)

Ser	Fact/Description	Technical Specification	To be filled up by
~ .		<u> </u>	Principal/ Manufacturer
(a)	(b)	(c)	(d)
	T 1: GENERAL SPECIFICATION	Provide Cont. (Dr. D. J. D.	r
1.	Nomenclature	Radio Set HF (Medium Range) (Vehicle and Base Station Version) (Military Version)	
2.	Type of Radio	Military Version (Vehicle 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 Manufacturer with complete address (Addresses, Telephone, Fax, Email & Website)	Details to be mentioned	
10.	Name of Principal with complete address (Addresses, Telephone, Fax, Email & Website)	Details to be mentioned	
11.	Name of Local Agent with complete address (Addresses, Telephone, Fax, Email & Website)	Details to be mentioned	
12.	Port of Shipment	Must be from the country of Manufacturing/Assembly. Trans-shipment not allowed	
13.	Golor	Metallic Bronze (MB) Green	
PAR	7 2: TECHNICAL SPECIFICATION		
14.	Frequency Range	1.6 MHz-30 MHz. Below 1.6 MHz and	
14.	Frequency Range	above 30 MHz are allowed	
15.	Frequency Band	HF	
16.	Channel Bandwidth	To be mentioned	· · · · · · · · · · · · · · · · · · ·
17.	Channel Spacing	To be mentioned	
18.	Number of Preset Memory Channel	Minimum 50. Specific memory channel is to be mentioned	
19.	Number of Total Working Channel	To be mentioned	
	Technical Communication Range		
20.	Static (Vehicle to Vehicle)	Minimum 30 KM	
Ì	On the Move (Vehicle to Vehicle)	Minimum 15 KM both in urban area and hilly area	
Ì	Vehicle to Base	Minimum 100 KM	CEHERAL DESC
21.	Antenna Type	Vehicular Broad band antenna is preferable. Details of all types of	DODP
		antennas to be mentioned	
22.	Antenna Tuning Unit (ATU)	To be mentioned	11*14/1*/
23.	Communication Security		STRY OF DEFENS
	a. Encryption	AES 256 or higher mode encryption must be available. Details to be mentioned	Curr
Ī	b. Frequency Hopping	Minimum 100 hops per minute Details	
		B-1 55 3 400 5	To los

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D.ISIGS-03:COM-0312. Ro-Eaval Board Radio Set|Bo(D for Gen, Spec of Radio Set on 27,02,247Anx A, B, C, D-& Eliz Anx B-HF Med Rng Vah

Sar	Fact/Description	Technical Specification	To be filled up by Principal/ Manufacturer
(a)	(b)	(c)	(d)
	C Ciber Turner of C	to be mentioned	(4)
	c. Other Types of Security (Optional)	Any other types of communication	
		security (if available) are to be	
24.	Dimension (W x D x H) (Without Antenna)	mentioned	
***	Suscession (AA X D X LI) (AAm long Autenua).	To be mentioned. Picture is to be	
		provided	
25.	Weight of the Radio set (Complete at	To be mentioned	
	Functional Condition)	10 be menifolied.	
26.	Power Supply System	a. Must be operated from 12/24 Volt	
	·	DC battery (preferably from vehicle	
		power source)	
		b. DC rechargeable and replaceable	
		battery may be proposed. Detail of	
		brand, model, country of manufacture	
		and battery rating are to be mentioned	
		c. The battery should have charging	
		facility from vehicle system (preferable)	
		reduity from vehicle system (preferable)	
27.	Transceiver		
	a. RF Power Output	(1) Min: 25 W or below	
		(2) Max: 100 W or above	
1		(3). Radio set must qualify in both the	
ŀ	b. Power Modes	above parameters	
	b. Power Wodes	Scalable Power Output modes are to	
ŀ	c. Modulation Type	be available. Details to be mentioned	
- 1	o. Moddiation Type	To be available (Details to be	
Ī	d. RF Input Impedance	mentioned)	
İ	e. Receiver Sensitivity	To be mentioned To be mentioned	
Ī	f. AF Output		
	g. Squelch Type	Details to be mentioned Details to be mentioned	
	h. Types of Waveforms	Details to be mentioned	
28.	Programming Software (Tools kit, Laptop	etc)	
	Programing Kit along with Software	To be provided	
	(Perpetual License)		
-	b. Tool Kit/Fill Gun	To be provided (if available)	
	c. Requirement of Laptop (Optional)	To be mentioned (if required)	
	Mandatory Features		
	a. Automatic Link Establishment (ALE)	Available (3G ALE or above)	
Ĭ	·		İ
-	b. Data Communication	Minimum 100 IC	
		Minimum 100 Kbps. Details to be mentioned	
	c. Built in Test (BITE)	To be available	
Ţ,	d. Instant messaging Facility	To be mentioned	
	e. GPS Facility	To be available	
1	. SDR Facility		WERN RE
- 1	. Jones a difference of the control	To be available and details to be mentioned	E GEHERAL DETERMINE
	J. CNR Facility	To be available	
30.	Optional Features	10 pe avaliable	DGDP E
	a. Remote Control Facility	Mile terror (OC	
F	p. IP interfacing facility with Field	Minimum 100 meter (wired/ wireless)	
l F		To be available and details to be	PY OF DEFE
1		mentioned	
`	-	Support BMS (Battlefield Management	10 Sius
,		System) or similar standards	10-2001
		B-2	10/ 10/
Dasio	S-03.COM-0312 Ro-Fauel Board Device State To the San San San San San San San San San San	DECEDIOTED /	F3 1 2 1812
D.1010	S-03.COM-0312. Re-Eaval Board Radio SettBofO for Gen Spec of Radio Set on 27,02.2	Alanx A, B, C, D & El2, Anx B. HF Med Rng Veh-Version doe	A. M. A.

Ser		Fact/Description	Technical Specification To be filled up by
(a)	 	(b).	Principal/ Manufactur
			(c) (d)
31.	Ope	erating/ Storage Condition	
		perating Temperature	- 10° C to + 55° C
	b. S	torage Temperature	- 20° C to + 60° C
	Ope	umidity Permissible Condition for ration	Maximum 95%
		peration during Fog, Rain and Snow	To be possible
	vehi (whe	arthling for communication cle/Tank/APC/ Armored Vehicle etc enever applicable)	
32.		ironmental Standards	
-		ain/Splash Proof	
		ust Proof	Military Standard 810 F or higher
		bration Proof	
		emperature Proof	As per operating and storage Temperature
33.	<u>List</u>	of Standard Accessories	(Details to be mentioned) Following Item/Accessories are to be offered as standard:
		Bill of Quantity/	Material (BOQ /BOM) of Standard Items
	Ser	rdbr Maine, Moineucistate	, , , , , , , , , , , , , , , , , , , ,
	a.	Transceiver (Including ALE, BITE, SDR Features, PA, ATU and	
]		Instant Messaging Facility etc)	
	b.	Radio Earthing	
	C.	Handset	
	d.	Antenna (Two different Antenna to	
		be given as Standard Item) complete with accessories	
	е,	Vehicle mounting kit (for radio and antenna) will all accessories	
	f.	Power Supply System	
-		(1) DC Power Supply Complete with all necessary cables	
		(2) Sealed Rechargeable Maintenance Free Battery (Minimum 120 AH) (02 Nos) acceptable from local source	
	g.	Programming Kit along with Software (Perpetual License and to be offered in 10:1 ratio)	
, , , , , , , , , , , , , , , , , , , ,	h.	GPS Facility with Accessories	
J		Data Communication facility with	
		Accessories (Data Transfer Cable or similar)	DEPAI DE
	ζ,	Tool Kit/Fill Gun (if available) with accessories (Fo be offered in 10:1 ratio)	DØDP
		Carrying Bag/ Transportation Case/Transit Case (To be offered as per requirement)	THE THE OF NEEDS
l n	n.	Required cables, connectors and associated accessories	Sigs of

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D.1SIGS-03 COM-0312: Re-Eaval Board Radio Set186/O for Gen Spec of Radio Set on 27:02.24/Anx A, B, C; D.8:E12. Anx B- HF Med Rng. Volt Version.doc

Ser	r Fact/Description			Technical S	Specification	To be filled ug by Principal/ Manufacturer				
(a)		(b)		(c) (d)						
34.	Listo	f Optional Accessorie	S	(Details to be mentioned) Following Item/Accessories are to offered as optional:						
		В	ill of Quantity	/Material (BOQ /BO)	VI) of Ontional	Itame				
	Ser	Eqpt Name/Nome	enclature		ii) oi Optionai	ireitie				
1	a.	Handset		- 						
İ	b.	Radio Earthing								
}	C.	Programming Softwar	е							
	d.	Data Communication								
	11	Accessories (Data Ti								
İ		or similar to be offered	1)							
1	e.	Laptop (To be offered								
	f,		Management	i						
	g.	System or similar) Carrying Bag/ 7	ransportation							
		Case/Transit Case	ransportation		1 1					
	h.		with Field							
		Exchange		[,			
	<u> j, </u>	Any other to be mantic								
35.	Warra		2 (Two) Year							
36.		Sales Service	5 (Five) Year							
37.	Model	Validity	Minimum 8 (I	Eight) years from sigr	ning of contract					
38.	Any of	har	If one House	comb assessment at	· · · · · · · · · · · · · · · · · · ·					
00.	i raily of	ilei	required tool	not specifically me	ntioned above	but				
]		hidder should	nnically for full rang	e or operation	the				
			offer in cas	d specify and quote such item(s) in their se of failure to specify and quote, the						
•			bidder must	provide such items from	and quote,	ine				
PAR	T-3:TI	RAINING REQUIREMEN	NT		30 01 0031					
39.	User T	raining		To be provided (As	per requiremen	t of				
				Signals & EME Dire	ctorate)					
40.	Operai Trainin	ions, Repair and Mainte	enance	To be provided (As)	per requiremen	t of				
41.		g ory Management Trainir		Signals & EME Directorate)						
		ay managoment traini	19	To be provided (As per requirement of Ordnance Directorate)						
42.	Publica	ation on Training		To be provided						
PAR'	T-4:RE	PAIR AND MAINTENA	NCE REQUIR	EMENT LESS LIST	OF SPARES					
43.	ROOKS	& Publication	-		OI OI AIREO					
	a. Own	ers / Operations manua	l in English	To be provided (As r	per requirement	of				
	(Book	Type) including CD/DVI	<u>)</u>)	Signals & EME Direct	ctorate)					
1	b. We	rkshop/Repair manual	incl detail	To be provided (As per requirement of						
	Schem:	atic and circuit diagram	n in English	Signals & EME Direct	ctorate)					
ł	C 1000	Type) including CD/DVE 6 Updated master spare)							
	catalog	ue in English (Book Tyr	e parts	To be provided (As p	er requirement	of	-			
ļ	CD/DV	D)	be) including	Signals & EME Direct	ctorate)	1				
Ī		plete and updated mas	ter spare	To be provided (As p	er requirement	of				
}	parts p	rice catalogue / list in E	English	Signals & EME Direc	:torate)	. 01				
	(Book	Type) including CD/DVD	0)		,					
44.	List of s	standard spare parts, to		To be provided (As p	er requirement	of				
DA DT	access			Signals & EMF Direct	torate)		GENERAL DESC			
45.	a Anal	L LIST FOR DIFFEREN yzer, Measuring Testing								
7.0.	finding	and Diagnostic set		To be provided (As p	er requirement	of	DOOP			
ŀ	b. Sner	iai Service Tools (SST)		Signals & EME Direc	torate)		B DGDP			
1	- poç	FION FOOT (001)		To be provided (As p Signals & EME Direc	er requirement	of	*\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
f	c, Spec	ial Service Materials (S	SM)	To be provided (As p	or foot frame		THY OF DESIGN			
		·	•	Signals & EME Direc	er redallement.	OI				
PART	-7: FIN	NCIAL SPECIFICATION	<u>DN</u>	TO COME TO SELECT TO SELECT		এন্ড ত	105 5 AL			
		· · ·				8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
				R_4	// / E	2191	- 1 - M 1 - 11			

DASIGS-03 COM-0312. Re-Eaval Board Radio SotlBoiO for Gen Spec of Radio Set on 27.02.24lAnx A, B, C, D & E12. Anx B- HF Med Rng Volt Version.doc 7

Ser	F (ID		
Ser	Fact/Description	Technical Specification	To be filled up by
Int	77.3		Principal/ Wanufacturer
(a)	(b)	(c)	(d)
46.	Financial Implication/ Specifications	To be mentioned	







ANX C TO
B of O RE-EVAL OF TECH SPEC OF
HF MED RNG VHF MED RNG AND
VHF MANPACK
DT V% FEB 2024

GENERAL SPECIFICATION OF RADIO SET VHF MEDIUM RANGE (BASE STATION VERSION)

Ser	East/Demolection	-, -		<u> </u>	
Sel	Fact/Description	Technical Specification			To be filled up by
(a)	(b)				principal/manufacturer
PAR	T 1: GENERAL SPECIFICATION	ď		(c)	(d)
1.	Nomenclature		o Set VUE Me	dium Dayer (Malatata	
'	, i sainte i contraction	and	Base Statio	dium Range (Vehicle n Version) (Military	ł
		Vers	ion)	n version) (wintary	į
2.	Type of Radio			se Station Version)	
	-	Soft	ware Defined F	Radio	
3.	Brand Name/make		e mentioned		
4.	Model	Tob	e mentioned		
5.	Country of Origin	Grou	ip A and B cou	ıntries	
6.	Country of Manufacture	Grou	ip A and B cou	intries	
7.	Country of Assembly		p A and B cou		
8,	Year of Manufacture	Not I	pefore the cale	ndar year of the	
	NT /C NT	contr	act	-	
9.	Name of Manufacturer with	Deta	ils to be mentic	ned	
	complete address (Addresses,				
	Telephone, Fax, Email & Website)	}			
10.		D-4-0	In the Land		
ľΨ.	Name of Principal with complete address (Addresses,	Detai	is to be mentic	ned	
	Telephone, Fax, Email &]			
	Website)				
11.	Name of Local Agent with	Defai	ls to be mentio	ned	
	complete address (Addresses,			nou	
	Telephone, Fax, Email &			İ	
	Website)				
12.	Port of Shipment	Must	be from the co	untry of	
j		Manu	facturing/Asse	mbly.Trans-	
35	0.1	shipm	ent not allowe	<u>d</u>	
13.	Golor	Metal	lic Bronze (MB) Green	
	2: TECHNICAL SPECIFICATIO				
14.	Frequency Range			Above 88 MHz is	
15.	Fraguency Pand	also a	llowed. Multiple	e band preferable	
	Frequency Band Channel Bandwidth	VHF	Company of the company		
	Channel Spacing		mentioned		THERM DE
	Number of Preset Memory		mentioned	ic memory channel	DGOP
	Channel of Freset Memory	iyunımı İstab	um 25. Specif e mentioned	DGOP E	
	Number of Total Working		mentioned		DGOP \$
	Channel	, , ,,,,,,	TO THOUSE		*.**\\\\\\\\\\\\\\\\\\\\\\\\
	Communication Range (tactical c	ommu	nication)		THE OF DETAIL
	Base Station Version	Plain	Urban Area	Hilly Area	VIP
	Minimum Range	25k	20km	12km	O Sigs O

C-1 RESTRICTED

DISIGS-03 COM-0712. Ro-Eaval Board Radin Setillo for Gen Spec of Radio Set on 27.02.24Anx A, B, C, D & E13. Anx G-VHF Med Rng Base Sta Version.docx

Ser	Fact/Description	Technical Specification	To be filled us by
	•		principal/manufacturer
(a)	(b)	(c)	(d)
21,	Antenna Type	Antenna complete with accessories	•
		details to be mentioned with various	
22.	Antenna Mast	types of antenna	
22.	Antenna Mast	Antenna Mast (height and segment) complete with accessories details to be	
		mentioned	
23.	Communication Security	monagnod	
	a. Encryption	AES 256 or higher mode encryption	
		must be available. Details to be	
		mentioned	
l	b. Frequency Hopping	Minimum 100 hops per minute. Details	
	c. Other Types of Security	to be mentioned	
] .	c. Other types of Security	Any other types of communication security (if available) are to be	
		mentioned	
24.	Dimension (W x D x H)	To be mentioned. Picture is to be	
	(Without Antenna)	provided	
25.	Weight of the Radio set (At	To be mentioned	
00	Functional Condition)		
26.	Power Supply System	a. Must be operated from both AC	
[(220 VAC ± 20% at 50 Hz) and DC rechargeable and replaceable battery.	
		Detail of brand, model, country of	i
		manufacture and battery rating are to	
İ		be mentioned	
		b. The battery charger should have	
		charging facility from AC power 220	
		VAC ± 20% at 50 Hz. Charging from	
27.	Transceiver	solar charger at ambient light (optional)	
	a. RF Power Output	1. Minimum 5 Watt or below.	
		2. Maximum 40 Watt or above.	
		3. The set must qualify in both the	
		above parameters.	
	b. Power Modes	Scalable Power Output modes are to be	
	c. Modulation Type	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	
	h. Types of Waveforms	Details to be mentioned	CENERAL DESCE
28.	Programming Software (Tools		(S) (E)
	a. Programing Kit along with	To be provided	DEDP
	Software (Perpetual License) b. Tool Kit/Fill Gun	To be provided (if available)	
	c. Requirement of Laptop	To be provided (if available) To be mentioned (if required)	
	(Optional)	1.2 2.5 monatoriou (n roduneu)	TO PRODUCE TO
		77 3 00	

Ser		Fact/Description	Technical Specification					р	To be filled up by principal/manufacturer
(a)		(b)		-{	(c)				(d)
29.	Mar	datory Features							19 344
	a.	Auto Re-broadcast/ data	To be	possible	a. D	etails	to	be	
	rela	/ing/ retransmission	mention	ied					
	facil								
	b.	Data Communication	Minimur	n 100 kb	ps.	Detail	s to	be	
			mention						
		Built in Test (BITE)	To be a	· · · · · · · · · · · · · · · · · · ·					
		Instant messaging Facility	To be m	entioned					
		GPS Facility	To be a						
		CNR Facility	To be a	vailable					
30.		onal Features		·					
		Remote Control Facility		n 100 Mete			ireles	3)	
,		Battle management		BMS (Batt					·
	Syst			ment Syste	em or	Simil	ar)		
		Mobile Adhoc Network	To be a	vailable					
31.		NET) facility							· · · · · · · · · · · · · · · · · · ·
31.		rating/ Storage Condition	-10º C to	E E O O					 -
ŀ		Operating Temperature Storage Temperature		0 +00° C					
ł		Humidity Permissible	Maximui					_	
1		dition for Operation	waxiiiiui	11 90%					
ŀ		Operation during Fog.	To be po	neeible					
- 1		and Snow	ro be pe) giài tài c					
32.		ronmental Standards							
		Splash/Rain Proof	·						
	b. I	Oust Proof	Military S	Standard 8 ⁻	10 F	or hial	her		
	c.	Vibration Proof	•			·		ł	
	d.	Temperature Proof	As per	operatir	ng :	and	stora	ge	
			tempera	ture					
33.	<u>List</u>	of Standard Accessories	Following	g Item/Acc	esso	ries a	re to	be	
ĺ		e to be quoted separately	offered a	is standard	l:				
	item	wise)	restant	7 1 - 1 - 2 m					
	Ser	Bill of Qua	intity/ivia						
ļ	Sei	Eqpt Name/ Nomencl	ature	Part No	' '	Qty		ntry of	Rmks
ĺ	a.	Transceiver (Including	RITE				Midili	<u>ifacture</u>	i
		Instant Messaging facilities	es etc)						
ľ	b.	Handset							
	C.	One Antenna complete	with all						
İ		accessories (To be offe							
		standard item)							
	d.	One Mast complete							
		accessories (To be offe	ered as						GENERAL DESER
		standard item)							
	e.	Power Supply System	miles of act						DODP
		(1) AC Power Supply of with cables	omplete						
		(2) DC Power Supply c	ominista						STOW of CALL
		with cables	outhiere						TRY OF DEE
		1	<u></u>						2 510s A

G-3 RESTRICTED

Ser		Fact/Description Te			cal Spe	cificati	on		filled up by	
(a)	 	(b)			3-01			principa	I/manufactu	rer
(a)	<u> </u>	(3) Sealed	Pocheranchi	21	(c)	T	1		(d)	
		1 * 4 .	Rechargeabl ree Batter							
	!	(Minimum 120 AH					ľ	ł		
	H	charging facility. A	rccebrapie: itou	n						İ
		local source				<u> </u>			····	
1	f.	Programming Ki					1			-
	11	Software (Perpetu		d						
		to be offered in 10			**	 				
	<u>g.</u>	GPS Facility with A								
	h.	Auto Re-broado		1			<u> </u>		-	
	11	relaying/ Retransi								
	11	with accessories (n		ŀ	ĺ			
		5:1 ratio for without								
İ	j.	Data Communicat								
			ata Transfe							
ļ		Cable or similar),	To be offere	d				ļ		
1		in 10:1 ratio								
	k.	Tool Kit/Fill Gun				-				
] [with accessories	(To be offere	ď.						
		in 10;1 ratio)		o# .						
	I.	Required cables,		g						1
	 	associated access				ļ				_
0.7	l m.	Carrying Case/Sto		·			<u> </u>		, 	
34.		of Optional Access						are to be		
	(File)	to be quoted separ	ately item	οπει	red as o	ptional:	•			
	wise)		of Orrentituin		4D'00 (DONAL -	£ 04	A 40	<u>i</u>	
	Ser	Egpt Name/ No	of Quantity/M	Part					Y	-
ļ		Edhragmet 140	hencialnie	No No	Qty		ntry of	KI	nks	
	a.	Handset		140		เผลเน	ifacture			
	b.	Programme Softwa			ļ					\dashv
l	C.	Data Communic		-						\dashv
	0.	with Accessor								
		Transfer Cable or]		ļ			
	d.	Laptop (To be of								\dashv
		ratio)	10.04 11 10.1)			
	e.	BMS (Battlefield	Management							\dashv
ĺ	~	System)		ļ.						
	f.	Carrying Case/Sto	rade Case							┥
	g.	Any others to be m								-
35.	Warra	·	2 (Two) Year	S			——————————————————————————————————————			
36.		Sales Service	5 (Five) Year							
37.		l Validity	Minimum 8		vears	from s	ianina of			
			contract		•					
38.	Any c	other	If any item n					12 S.	ALW DE CO	 ;
			but required	techn	ically fo	or full	range of			
			operation, the	ne bidd	ler sho	uld spe	ecify and		XGDP E	
			quote such i						~~~ §	ļ
			failure to spe				lder must	1	エルジ	
			provide such	items f	ree of c	ost			OF DELE	£45.
	<u>.</u>		<u> </u>		 		1/2/3		HOS	
							11 682		11 1 117	151

C-4 RESTRICTED

(a) (b) (c) (c) principal/manufacturer PART-3: TRAINING REQUIREMENT 39. User Training 40. Operations, Repair and Maintenance Training 41. Inventory Management Training 42. Publication on Training 43. Books & Publication 44. Books & Publication 5 Signals & EME Directorate) 45. a. Owners/Operations manual in English (Book Type) including CD/DVD) 6. 100% Updated master spare parts catalogue in English (Book Type) including CD/DVD) 6. Complete and updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) PART-4: LIST OF SPARES 45. a. Analyzer, Measuring To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Direct	ser	Fact/Description	Technical Curvillantian	
Ca Ca Ca Ca			Technical Specification	To be filled up by principal/manufacturer
39. User Training		(b)	(c)	
40. Operations, Repair and Maintenance Training Signals & EME Directorate) 41. Inventory Management To be provided (As per requirement of Signals & EME Directorate) 42. Publication on Training To be provided (As per requirement of Ordnance Directorate) 43. Books & Publication a. Owners/Operations manual in English (Book Type) including CD/DVD) b. Workshop/Repair manual includits schematic and circuit diagram in English (Book Type) including CD/DVD c. 100% Updated master spare parts catalogue in English (Book Type) including CD/DVD) d. Complete and updated master spare parts roice catalogue / list in English (Book Type) including CD/DVD) d. Complete and updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) AC Complete And updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) PART-5: LIST OF SPARES 44. List of standard spare parts, tools and accessories PART-6 TOOL LIST FOR DIFFERENT LEVEL OF MAINTENANCE 45. a. Analyzer, Measuring Testing/Fault finding and Diagnostic set b. Special Service Tools (SSM) PART-7: FINANCIAL SPECIFICATION 46. Financial implication/ To be mentioned				
Administrations Repair and Maintenance Training Signals & EME Directorate)	39.	User I raining	To be provided (As per requirement of	
Maintenance Training Signals & EME Directorate) 41. Inventory Management To be provided (As per requirement of Ordnance Directorate) 42. Publication on Training To be provided (As per requirement of Ordnance Directorate) 43. Books & Publication a. Owners/Operations manual in English (Book Type) including CD/DV/D) b. Workshop/Repair manual including CD/DV/D c. 100% Updated master spare parts catalogue in English (Book Type) including CD/DV/D d. Complete and updated master spare parts price catalogue f list in English (Book Type) including CD/DV/D d. Complete and updated master spare parts price catalogue f list in English (Book Type) including CD/DV/D PART-5: LIST OF SPARES 44. List of standard spare parts, tools and accessories Signals & EME Directorate) PART-6 TOOL LIST FOR DIFFERENT LEVEL OF MAINTENANCE 5. Special Service Tools (SSIT) c. Special Service Materials (SSM) PART-7: FINANCIAL SPECIFICATION To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate)	40	Oneveller III	Signals & EME Directorate)	
41. Inventory Management Training To be provided (As per requirement of Ordnance Directorate) 42. Publication on Training To be provided PART-4: REPAIR AND MAINTENANCE REQUIREMENT LESS LIST OF SPARES 43. Books & Publication a. Owners/Operations manual in English (Book Type) including CD/DVD) b. Workshop/Repair manual incl detail schematic and circuit diagram in English (Book Type) including CD/DVD c. 100% Updated master spare parts catalogue in English (Book Type) including CD/DVD) d. Complete and updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) C. Office and updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) PART-5: LIST OF SPARES 44. List of standard spare parts, tools and accessories (Signals & EME Directorate) PART-6 TOOL LIST FOR DIFFERENT LEVEL OF MAINTENANCE To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) PART-7: FINANCIAL SPECIFICATION To be mentioned	40.	Operations, Repair and	To be provided (As per requirement of	
Training Ordnance Directorate) 42. Publication on Training To be provided PART-4: REPAIR AND MAINTENANCE REQUIREMENT LESS LIST OF SPARES 43. Books & Publication a. Owners/Operations manual in English (Book Type) including CD/DVD) b. Workshop/Repair manual incl detail schematic and circuit diagram in English (Book Type) including CD/DVD c. 100% Updated master spare parts catalogue in English (Book Type) including CD/DVD) d. Complete and updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) 4. Complete and updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) PART-5: LIST OF SPARES 44. List of standard spare parts, tools and accessories Signals & EME Directorate) PART-6 TOOL LIST FOR DIFFERENT LEVEL OF MAINTENANCE c. Special Service Tools (SST) c. Special Service Materials (SSM) PART-7: FINANCIAL SPECIFICATION To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate)	10	Interface Training		
Publication on Training To be provided	41.		10 be provided (As per requirement of	
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a. Owners/Operations manual in English (Book Type) including CD/DVD) b. Workshop/Repair manual incl detail schematic and circuit diagram in English (Book Type) including CD/DVD c. 100% Updated master spare parts catalogue in English (Book Type) including CD/DVD) d. Complete and updated master spare parts price catalogue f list in English (Book Type) including CD/DVD) PART-5: LIST OF SPARES 44. List of standard spare parts, tools and accessories PART-6 TOOL LIST FOR DIFFERENT LEVEL OF MAINTENANCE 45. a. Analyzer, Measuring Testing/Fault finding and Diagnostic set b. Special Service Materials (SSM) PART-7: FINANCIAL SPECIFICATION Financial Implication/ To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate)		Publication on Training	To be provided	
a. Owners/Operations manual in English (Book Type) including CD/DVD) b. Workshop/Repair manual incl detail schematic and circuit diagram in English (Book Type) including CD/DVD c. 100% Updated master spare parts catalogue in English (Book Type) including CD/DVD) d. Complete and updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) PART-5: LIST OF SPARES 44. List of standard spare parts, tools and accessories PART-6 TOOL LIST FOR DIFFERENT LEVEL OF MAINTENANCE 45. a. Analyzer, Measuring Testing/Fault finding and Diagnostic set b. Special Service Tools (SST) PART-7: FINANCIAL SPECIFICATION To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate)	PAR	1-4: REPAIR AND MAINTENA	NCE REQUIREMENT LESS LIST OF SPA	ARES
manual in English (Book Type) including CD/DVD) b. Workshop/Repair manual incl detail schematic and circuit diagram in English (Book Type) including CD/DVD c. 100% Updated master spare parts catalogue in English (Book Type) including CD/DVD) d. Complete and updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) d. Complete and updated master spare parts price catalogue / list in English (Book Type) including CD/DVD) PART-5: LIST OF SPARES 44. List of standard spare parts, tools and accessories Signals & EME Directorate) PART-6 TOOL LIST FOR DIFFERENT LEVEL OF MAINTENANCE 45. a. Analyzer, Measuring Testing/Fault finding and Diagnostic set b. Special Service Tools (SST) c. Special Service Materials (SSM) PART-7: FINANCIAL SPECIFICATION To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate) To be provided (As per requirement of Signals & EME Directorate)	43.			
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HF MED RNG VHF MED RNG AND
VHF MANPACK
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GENERAL SPECIFICATION OF RADIO SET VHF MEDIUM RANGE (VEHICLE VERSION)

Ser	Fact	Technical Specification	To be filled up by principal/ manufacturer
(a)	(b)	(c)	(d)
	T 1: GENERAL SPECIFICATION	· · · · · · · · · · · · · · · · · · ·	(34)
1.	Nomenclature	Radio Set VHF (Medium Range)	
i ''	Nonicholatura	(Vehicle and Base Station	
		Version) (Military Version)	
2.	Type of Radio	Military Version (Vehicle Version)	
		Software Defined Radio	
3.	Brand Name/make	To be mentioned	
4.	Mødel	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 Manufacturer with	Details to be mentioned	
	complete address (Addresses,		
	Telephone, Fax, Email &		
- 60	Website)	Details to be usertioned	
10.	Name of Principal with	Details to be mentioned	
	complete address (Addresses, Telephone, Fax, Emaîl &		
	Website)		
11.	Name of Local Agent with	Details to be mentioned	
4 /6/4	complete address (Addresses,	Dotallo 40 20 filorition	
	Telephone, Fax, Email &		
	Website)		
12.	Port of Shipment	Must be from the country of	
	•	Manufacturing/Assembly. Trans-	
		shipment not allowed	
13.	Color	Metallic Bronze (MB) Green	
PΔR	T 2: TECHNICAL SPECIFICATION	ON CONTRACTOR OF THE CONTRACTO	
14	Frequency Range	30 MHz - 88 MHz. Above 88 MHz	
,	, , , oquoi, o, , , cango	is also allowed. Multiple band	
		preferable	COLORAL DECA
15.	Frequency Band	VHF .	STATE AND DECEMBER
16.	Channel Bandwidth	To be mentioned	
17.	Channel Spacing	To be mentioned	ি DGDP €
18.	Number of Preset Memory	Minimum 25. Specific memory	
	Channel	channel is to be mentioned	The state of the s
19.	Number of Total Working	To be mentioned	10 Sigs
	Channel		10 5 0 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Ser	Fact		Technical Specification			To be filled up by priscipal/ manufacturer
(a)	(b)			(c)	(d)	
20.	Communication Range (tactical	commu			N A
	Vehicle on Move		Land	Urban Area	Hilly Area	
	Minimum Range	10	km	08 km	06 km	1 7 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2
	Vehicle on Static	Plain	Land	Urban Area	Hilly	
	Minimum Range		km	12 km	08 km	
21,	Antenna Type		be me	s of vehicle antenna entioned. Various na may be proposed	types of	
22.	Communication Secur	ity			*	
	a. Encryption			256 or higher ition must be a to be mentioned		
	b. Frequency Hopping	,	Minim	um 100 hops per to be mentioned	minute.	
	c. Ofher Types of Securi	ity		ther types of comm by (if available) ar aned		
23,	Dimension (W x D x H) (Without Antenna)		To be	mentioned, Picture ed		
24.	Weight of the Radio s Functional Condition)	set (At	To be	mentioned		
25.	Power Supply System		vehicle	o be operated from power source (pre C rechargeable	ferable)	
			replace propose countre battery c. T chargin	eable battery need. Detail of brancy of manufactur rating are to be me		
26.	Transceiver					
	a. RF Power Output		2. Max 3. The	imum 5 Watt or belo timum 40 Watt or at set must qualify in parameters	oove	
	b. Power Modes		Scalab to be mentic	ole Power Output m available. Details oned	s to be	
	c. Modulation Type		specific data	odulation types and with required		GENERAL DESCRIPTION
	d. RF Input Impedance			mentioned	<i></i>	I B GOP €
	e. Receiver Sensitivity			mentioned		*
	f. AF Output			to be mentioned		OF DECKNO
	g. Squelch Type h. Types of Waveforms			to be mentioned		VI UC
L	in Types of Wavelotti	D	Dergiis	to be mentioned	73 5 9	S Signal Signal

Ser	Fact	Tooksieel Presification	To to sell of the
361	Pact	Technical Specification	To be filled up by principal/ manufacturer
(a)	(b)	(c)	(d)
27 _e	Programming Software (Tools kit, L	.aptop.etc)	
	a. Programing Kit along with	To be provided	
1	Software (Perpetual License)		
	b. Tool Kil/Fill Gun	To be provided (if available)	
	c. Requirement of Laptop, PDA,		
	Android Devices etc (Optional)	item	
28,	Mandatory Features		
	a. Auto Re-broadcast/data	To be possible. Details to be	
	relaying/ retransmission facility	mentioned	
	b. Data Communication	Minimum 100 kbps. Details to	
1		be mentioned	
	c. Built in Test (BITE)	To be available	
	d. Instant messaging Facility	To be mentioned	
	e. GPS Facility	To be available	
	f. CNR Facility	To be available	
29.	Optional Features		
	a. Remote control facility (Optional)	Minimum 10 meter (wired/	
		wireless)	
	b. Battle Management System	Support BMS (Battlefield	
		Management System or similar)	
	c. Mobile Adhoc Network (MANET)	To be available	
30.	facility Operating/ Storage Condition		
30.		400 0 5 1550 0	
	Operating Temperature Storage Temperature	-10° C to +55° C	
		-20° C to +60° C	
	c. Humidity Permissible Condition for Operation	Maximum 95%	
<u> </u>	d. Operation during Fog, Rain and	To be possible	
	Snow	To be possible	
31.	Environmental Standards	<u> </u>	
	a. Shock/Drop Proof		
	b. Splash Proof	Ī	
	c. Dust Proof	Ţ	
1	d. Vibration Proof	Military Standard 910 F as higher	
	e. Earthling for Communication	Military Standard 810 F or higher	
İ	Vehicle/ Tank/APC/ Armored Vehicle		
	etc (whenever applicable)		
-	f T		
	f. Temperature Proof	As per operating and storage temperature	
32.	List of Standard Accessories (Price		
	to be quoted separately item wise)	to be offered as standard:	
ľ		aterial (BOQ /BOM) of Standard	Items
	Ser Eqpt Name/ Nomenclature	Part No Qty Country	
		Manufact	
	a. Transceiver (Including BITE,	Instant	
	Messaging facilities etc)		DODP E
	b. Handset		
	c. One Antenna complete wit		
	accessories (To be offere	d as	OF DE LEGIS
	Standard item)		0.5108
		D 3	110/2

D-3
RESTRICTED

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DASIGS-43 COM-47/2, Ro-Eaval Board Radio Setting Of Gen Spec of Radio Set on 27.02.24/Anx A, B, C, D & EM. Anx D - VHF Med Ring Veh Version.docs

Ser	Fact			Technical Specification				J	To be filled up ≛y cipal/ manufacturer
101		(h)			(c)			þru	(d)
(a)	d.	(b) Power Suppl	v Švotom	·	(.0.)	-			(u)
	u,		r Supply comple	te with					
		(2) Sealed Re	chargeable Maint	enance					
			(Minimum 120 A rging facility. Acc						
	e.	Programming	Kit along with Scense and to be						
	f.		vith Accessories						
	g,	Auto Re-broa Retransmissio	dcasting/ Data re on facility To be offered in 5	with					
	ħ.	Data Comm Accessories	unication facility Data Transfer Confered in 10:1 ra	able or	,				
	j.	Tool Kit/Fill (accessories	Gun (if available) (To be offered) with					
	k.	ratio) Required ca		s and					
	1.		radio in Military V	ehicle	- 114				·
	m.		se/Transportation						
33.			cessories (Price		ving Item/Accessories are offered as optional:				alls given below the nical specification
			Bill of Quantity/				Standard	Item	
	Ser		lame/ Nomenclati	nte	Part No	Qty	Country Manufac		Rmks
	а.	Handset	-						
	b.	Programme S		Die:	iet:		ļ		
	C,	l .	nunication faci Data Transfer Ca						
	d.	Laptop (To be	offered in 10:1 ra	atio)					
	e.	•	eld Management	System	or				
	f.		ase/Transportatio Storage Case	n Cas	ë/:				
	g.		be mentioned						
34.	Warr		2 (Two) Years						
35.	After	Sales Service	5 (Five) Years				SCHERNI DEFENCE		
36.	Mode	l Validity	Minimum 8 (Eight) years fr	om signing	of con	tract		DGDP
37.	Any o	other	If any item not specifically mentioned above but required technically for full range of operation, the bidder should specify 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						

D-4 RESTRICTED

<u> </u>			
Ser	Fact	Technical Specification	To be filled up by
655			principal/ manufacturer
(a)	(b)	(c)	(d)
PAL	RT-3: TRAINING REQUIREMENT		
38.	User Training	To be provided (As per	
		requirement of Signals & EME	
		Directorate)	
39.	Operations, Repair and Maintenance	To be provided (As per	
İ	Training	requirement of Signals & EME	
		Directorate)	
40.	Inventory Management Training	To be provided (As per	
		requirement of Ordnance	
<u> </u>		Directorate)	
41.		To be provided	
	T-4: REPAIR AND MAINTENANCE R	EQUIREMENT LESS LIST OF SP	ARES
42.	Books & Publication		
	a. Owners / Operations manual in		
1	English (Book Type) including	requirement of Signals & EME	
	CD/DVD)	Directorate)	
	b. Workshop/Repair manual incl detail	To be provided (As per	
	schematic and circuit diagram in		
İ	English (Book Type) including CD/DVD	Directorate)	
	c. 100% Updated master spare parts	To be provided (As per	
	catalogue in English (Book Type)	requirement of Signals & EME	
	including CD/DVD)	Directorate)	
			;
	d. Complete and updated master		
1 .	spare parts price catalogue / list in	requirement of Signals & EME	
	English (Book Type) including	Directorate)	ļ
	CD/DVD)		
	T-5 : LIST OF SPARES		
43.	List of standard spare parts, tools	To be provided (As per	
	and accessories	requirement of Signals & EME	
DAD	TATONI LIOT HAD DIFFERENCE LINE	Directorate)	
PAR	T-6 TOOL LIST FOR DIFFERENT LEVI		. —
44.	a. Analyzer, Measuring Testing/Fault	To be provided (As per	ļ
	finding and Diagnostic set	requirement of Signals & EME	
	b. Special Service Tools (SST)	Directorate)	
	n' chaciat pataice (0018 (991)	To be provided (As per	
		requirement of Signals & EME	
	c Special Service Materials (CCM)	Directorate)	-
	c. Special Service Materials (SSM)	To be provided (As per	
		requirement of Signals & EME Directorate)	1
PAR"	7-7: FINANCIAL SPECIFICATION	Directorate)	
		To be mentioned	SQ Sigs
	- State of the sta	10 00 Intelligation	

ANX E TO B OF O RE-EVAL OF TECH SPEC OF HF MED RNG VHF MED RNG AND VHF MANPACK DT > 8 FEB 2024

GENERAL SPECIFICATION OF RADIO SET VHF MANPACK (MILITARY VERSION)

	GENERAL SPECIFICATION OF RADIO SET VHF MANPACK (MILITARY VERSION)						
Ser	Fact/Descrip	tion		Tech Spec	To be filled up by Principal/ Manufacturer		
(a)	(b)			(c)	(d)		
PAR	T-1: GENERAL S	<u>PECIFICA</u>					
1.	Nomenclature		Version				
2.	Type of Radio		Military	Version Software Defined Radio			
3.	Brand Name/Make			mentioned			
4.	Model			mentioned			
5.	Country of Origin			A and B countries			
6.	Country of Manufac			A and B countries			
7.	Country of Assembl	×		A and B countries			
8.	Year of Manufacture		contrac				
9.	Name of Manufactomplete (Addresses, Teleph Email & Website)	address		to be mentioned			
10.	complete (Addresses, Teleph Email & Website)	address ione, Fax,		to be mentioned			
11,	Name of Local A complete (Addresses, Teleph Email & Website)	address		to be mentioned			
12.	Port of Shipment			be from the country of acturing/			
			Assembly. Trans-shipment not allowed				
	Colour		livietallic	Bronze (MB) Green			
	T-2: TECH SPEC		00 7511	- 00 8411- 41 00 8411- 1-			
14.	Frequency Range			z - 88 MHz. Above 88 MHz is			
₩.E	Frequency Band		also all	owed			
	Channel Bandwidth			nentioned			
	Channel Spacing			nentioned			
		Memory		m 25. Specific memory channel			
	Channel	y		mentioned			
40	Number of Total	Working					
19.	Channel Communication Ro	man Inflam	nack Ta	ctical Communication)	<u></u>		
20.	Communication Ra	Plain	Urban	Hilly Area			
- 1		Land	Area				
	Minimum Range	08 km	06 km	05 km			
	Antenna Type			to be mentioned with various fantenna			
22.	Communication Se	curity			SENERAL DES		
	a. Encryption	· · · · · · · · · · · · · · · · · · ·	must mention		DOP		
	b. Frequency Hop		to be m	m 100 hops per minute. Details entioned	* Light State of the state of t		
	c. Other Types of	Security	Any o security mention	ned	30 Sigs		
				1/2	2 95 mg (1)		

RESTRICTED (+)

Ser	Fact/Description	Tech Spec	To be filled up by Prin⇔pal/ Manufacturer
(a)	(b)	(ĉ)	(d)
23.	a. Without antenna	To be mentioned. Picture is to be provided	-
24.	Functional Condition)	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 10 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	
	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	
	h. Types of Waveforms	Details to be mentioned	
28.		S Kir, Laprop etc)	
	a. Programing Kit along with	to be provided	
	Software (Perpetual License)	To be a self-self-self-self-self-self-self-self-	
	b. Tool Kit/Fill Gun	To be provided (if available)	
	c. Requirement of Laptop, PDA, Android Devices etc. (Optional)		
29.			
	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	
	d. Instant Messaging Facility	To be mentioned	
1	e. GPS Facility	To be available	GENERAL DES
	f. CNR Facility	To be available	
30.	Optional Features Battle Management System	Support BMS (Battlefield Management	DOOP
04	Operating/Phases Candities	System or similar)	* <u>*</u> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
31.		1 -10° C to +55° C	TRY OF DETERMINE
	a. Operating Temperature	-10° C to +55° C	Jao Si
ļ	b. Storage Temperature	Maximum 95%	The state of the s
Ь	c. Humidity Permissible	Intevituant 20/0	TO THE STATE OF TH

E-2
RESTRICTED
D::ISIGS-03 COM-0312, Re-Eaval Board Radio SettleofO for Gen Speciof Radio Set on 27.02:24(Anx:A;B,C; D & EIS, Anx:E - VHF Manipack,doo

Ser		Fact/Description	Tech Spec			T	o be filled up by Principal/ Manufacturer	
(a)		(b)		(c)				(d)
		dition for Operation						
-/-	Rain	Operation during Fog, and Snow	To be	possible				
32.		ironmental Standards			 			
		Shock/Drop Proof		Military Standard 8	310 F c	or higher		
		Water/Immersion Proof						
		Dust Proof						
		Vibration Proof						
	e.	Temperature Proof		As per operating	and	storage		
				temperature				
33.		of Standard Accessories		Following Item/ A				
		e to be quoted separately I	tem :	to be offered as sta	andard			
	wise		£ 0.72		2008	() at O4an	al'a mal 1	R
-	Can			ntity/Material (BOC				
	Ser	Eqpt Name/ Nomenclat	uie	Part No	Qty	Countr Manufa	y oi	Rmks
	a.	Transceiver (including	DITE			iyjaituta	cluie	
	a.	Instant Messaging Facility						
ŀ	b.	Handset	City					
İ	C,	Two Antennas complete	with					
	٠,	all accessories (To be o					-	
İ		as Statndard Item)						
İ	d.	Rechargeable/ Recharg	eable					
ł		Battery 02 Sets x B	attery					
1		offered as Standard Item						
		Fitted with Radio & 01x Ex						
Ì	e.	Charger (Battery Ch	arger					
].		including Accessories)						
	f,	Manpack Ca	rrying					i i
ļ		Bag/Harness						
- 1	g.	Programming Kit along			Ī			
}		Software (Perpetual Lie						
-	h.	and to be offered in 10:1 r GPS facility with Accessor					_	
}	<u>j.</u>	Auto Re- broadcasting/						
ŀ	J.	relaying/ Retransmission						
		each Radio Set	, ,0.				1	
ľ	k.	Data Communication f	acility			······································		
- 1			(Data					
		Transfer Cable or simila			ŀ			
		be offered in 10:1 ratio)						
ſ	Į.	Tool Kit/Fill Gun						
- 1		(if available) with access					ŀ	
		(To be offered in 10:1 ratio					_	
	m.	Carrying Case/ Transpor			[
-		Case/ Transit Case/Sto	orage	ļ	.			
		Case						S 5 9 5

E-3

Ser		Fact/Description		Tech Spec	To b	e filled up by I	Principal/ Manufacturer
(a)		(b)		(c)			(d):
34.	List	of Optional Accessorie	<u>s</u>	Following Ifem/ Ac	cessories ar	e to be offered	as standard
		e to be quoted separatel	<u>v Item</u>				
	wise						
İ	Ser	Bl.	i of Qua	ntity/Waterial (BO			
	Ser	Eqpt Name/ Nomeno	ature	Part No	Qty	Country of	Rmks
	a.	Handset				Manufacture	
	b,	Manpack Carrying				-	
	~.	Bag/Harness		İ	-		
	C.	Programme Software			[
	d.	Data Communication	facility				· · · · · · · · · · · · · · · · · · ·
		with Accessories					
	e.	Rechargeable Battery					
	f.	Laptop (To be offered in	10:1]	
		ratio) BMS (Battlefield Manag	omovit				
	g.	System or similar)	ement				
	h.	Carrying Case/ Transp	ortation				
	,	Case/ Transit Case/	Storage				
		Case			ļ		
		Any others to be mantic	ned				***
35.	Warr			o) Years			
		Sales Service		e) Years			
37,	Mode	el Validity			years from		
38.	Any	other		ig of contract iny item not	specifically		
00.	raity s	garor			specifically it required		
				ically for full	range of		
				tion, the bidder sh			
			and q	uote such item(s) i	n their offer.		
			In ca	se of failure to	specify and		
			quote	, the bidder must p	rovide súch		
PAR	T - 3:	TRAINING REQUIREM	FNT	free of cost		<u> </u>	
				67.5			
39.	User	Training	10 DE	provided (As per nals & EME Director	requirement		
40.	Oper	ations, Repair an		provided (As per			
,		tenance Training		nals & EME Directo			
41.	Inver	itory Management	To be	provided (As per	requirement		
	Train		of Ord	Inance Directorate)			
42.	Publi	cation on Training	To be	provided			
PAR	1 – 4:	REPAIR AND MAINTE	NANCE.	REQUIREMENT LE	<u>ESS LIST OI</u>	SPARES	
43.		s & Publication	7 7- 5-	Washington and Albania			
	in	vners/Operations manua English (Book Type	in 10 DE	provided (As per i nals & EME Directo	refuirement		
		ding CD/DVD)	7 J 5. 5.9	mais & Civit Directo	naley		
	b. Wo	orkshop/Repair manual inc	I To be	provided (As per	requirement		
	detail	schematic and circu	it of Sig	nals & EME Directo	rate)		
		am in English (Book Type	2)		-		
}	Includ	ling CD/DVD		***			CENERAL DEC
	'U, l ∙enare	00% Updated maste parts catalogue i	rio be	provided (As per i	requirement		
	Engli	sh (Book Type) includin	i joj olg	itais & ElâlE Ditecto	rate)		
	CD/D		"				DGDP
	d. C	complete and update	To be	provided (As per i	equirement		7×11
	maste	er spare parts pric	e of Sig	nals & EME Directo	rate)		THE STATE OF THE S
		ogue / list in Englis					
• [(Bool		9				THO SON
	شابالثاب	(UV)				4 5 5 5 T	
				E-4		(510 . S. 18)	7 *) (* 1/2°) (2)
D:ISIGS-0	3 COM-031	L. Re-Eaval Board Radio SellBofO for Gen Spe	of Radio Set o	RESTRICTI 127.02.24Janx A. B.C. D.& Els. Anx I			
					mankanumay	يام مدر السياس المح دد وعوال ال	· 22 1.00

3er	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. To be provided (As per requirement tools and accessories of Signals & EME Directorate)						
PAR	T - 6: TOOL LIST FOR DIFFE	RENT LEVEL OF MAINTENA	NGE			
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 request) of Signals & EME Directorate				
	c. Special Service Materials To be provided (As per requirement of Signals & EME Directorate)					
PAR	PART -7: FINANCIAL SPECIFICATION					
46.	Financial implication/ Specification	To be mentioned	Q Sigs			

