

No. J-15011/1(HLA-CPRTI)/2019-Trg
Government of India
Ministry of Home Affairs
Directorate of Coordination
Police Wireless

Central Police Radio Training Institute
Date: - 20.01.2021

To,

1. All the Vendors
2. All Stake Holders (States/UTs/CAPFs)

Subject:- Request for comments of vendors/ Stakeholders on specification /QR of NVIS based Half Loop Magnetic Antenna System.

Directorate of Coordination Police Wireless (DCPW) intends to procure 02 Nos. of Half Loop Magnetic Antenna for training purpose. In this connection, this Directorate has framed the Specification / QRs for NVIS based Half loop Magnetic Antenna. The comments of vendors / firms are invited on specifications/ QRs. The interested firms may forward their comments on enclosed Specifications/QRs.

Further for ease of procurement, Directorate also intends to bring the specifications at GeM portal also, therefore all stakeholders (States/UTs/CAPFs) are also requested to kindly provide the inputs/comments.

The comments may be forwarded at email Id:- vbarthwal.44@dcpw.gov.in within 03 weeks of time from the date of uploading of the document at DCPW web portal i.e. www.dcpw.gov.in.

(Vinay... 20.01.2021)
(Vinay Barthwal)
Assistant Director (trg)
Mob: - 8527569762

Copy to:-

1. Assistant Director (IT) :- for uploading at DCPW web portal

संयुक्त निदेशक (प्रशि.)
Joint Director (Trg.)
आ. सं. 74
Dy. No.
दिनांक : 20-1-21
Dated.....

**TECHNICAL SPECIFICATION OF HALF LOOP ANTENNA SYSTEM
(NVIS)**

(Near Vertical Incidence Sky wave)

1. GENERAL SPECIFICATION

PARAMETER	SPECIFICATION
Frequency Range	2.0 MHz to 29.9999 MHz
Power Rating	Max 150 Watts PEP.
Role	Static and Mobile
Input Impedance	50 ohms unbalanced
VSWR	Better than 1.5:1 for entire band
Pattern of Radiation	Omni directional
Pattern of Radiation	NVIS
Power Supply	12/24 VDC Nominal
ATU Tuning Method	Continuous Variable Tuning
Tuning Time	Average Time:- < 4 seconds Max Tuning Time:- 8 seconds or better
Tune Power	Less than 40 Watt or better
Gain	For frequency <10 MHz, Gain:- -15 dBi or better For Frequency ≥ 10 MHz, Gain:- -10 dBi or better
Power Consumption	Transmission:- <25 Watt or better Reception:- <8 Watt or better
Initial Operational Time (Startup and Tuned)	5 seconds or better
Protection	i. Reverse Polarity Protection ii. Lightning Protection iii. Against High VSWR iv. Over Temperature v. Over Current and Over Voltage

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Compatibility and Interface	<p>1. The Loop Antenna should be compatible with HF radios as per enclosed technical specification of 100 Watt HF & HF Manpack Radios.</p> <p>2. Suitable interfacing should be available for specifically Codan and Barret Radios.</p>
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2. MECHANICAL PARAMETER


Shape and Dimensions of Antenna	<p>Radiating Element</p> <p>1. Semi Circular : Max length: 2.4 Mtr, Max Height: 1.0 Mtr</p> <p>2. Rectangular: As per Roof dimensions of 'Bolero' or better</p>
Weight (Including mounting brackets)	Less than 70 kg or better
Wind Rating	Upto 130 Km/Hour or better
Sealing	IP 64 or better
EMC	Mil-STD-461 F or better.

3. ENVIRONMENTAL PARAMETER

Operating Temperature	-30°C to + 55°C
Storage Temperature	-30°C to + 55°C
Humidity	95% max at +20°C non-condensing
Dust	MIL STD 810 C/D/E
Vibration	MIL STD 810 C/D/E
Water Intrusion	MIL STD 810 C/D/E
Shock	MIL STD 810 C/D/E
Altitude	MIL STD 810 C/D/E


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