

**BROAD/AoN DETAILS FOR PROCUREMENT OF QUANTITY 140 LIGHT
WEIGHT RADIO RELAY FOR MOUNTAINS**

1. **AoN Date.** 29 Sep 2022
2. **Item Description (Weapon/Equipment/Platform).** The Light Weight Radio Relay equipment is envisaged to be lightweight, compact, portable and easy to handle. The equipment will be deployed in High Altitude Areas, Mountains and Hilly areas. The equipment will need to endure sustained cross-country move over rough terrain while being man portable, mule based or vehicle mounted.
3. **Quantity.** 140
4. **Categorisation.** Buy (Indian) as per provision of Chapter V of DAP 2020.
5. **Broad Parameters/ORs of the item.**

<u>Ser No</u>	<u>Parameter</u>	<u>Value</u>
(a)	Modes of Operation	(i) Fixed Frequency (FF) (ii) Frequency Hopping (FH).
(b)	Communication Ranges	(i) 15 Km or more in single hop for FF and FH for RLOS. (ii) 25 km or more in repeater mode in FF and FH for RLOS.
(c)	Frequency Range	4.4 to 5 GHz
(d)	Data Throughput	(i) 100 Mbps or more in FF mode. (ii) 8 Mbps or more in FH mode.
(e)	Weight	Less than or equal to 35 Kgs, less mast and alignment unit
(f)	Colour	Olive Green (Matte Finish)
(g)	Adaptive Power Output	The equipment should be configurable in multi power modes (atleast two power modes). The radio relay must offer Adaptive Power Control (APC).
(h)	Frequency Hopping Rate	500hops per second or more
(j)	Security	(i) <u>Clear Mode.</u> Both data and control path in clear mode (ii) <u>Secure Mode (Industrial Grade</u>



<u>Ser No</u>	<u>Parameter</u>	<u>Value</u>
		<u>Security</u> . 256 bit AES encryption algorithm for data over the radio link and 128 bit or better AES encryption algorithm for radio control path (if separate) to be provided.
(k)	Antenna Parameters	(i) <u>Type</u> . Directional (ii) <u>Gain</u> . 29 dBi or more (iii) <u>RF transmission power</u> . 25 dBm or more
(l)	Antenna Mast Type 1(Tripod)	(i) Mast System full height 2 metre,or more (ii) Retracted Height 1.5 m or less (iii) Operational wind speed 80 km/hr or more with payload (iv) Survivable wind speed 120 km/hr (v) Weight – 15 Kg or less (excluding weight of accessories)
(m)	Antenna Mast Type 2	(i) Detachable Section Based Mechanical Antenna Assembly (ii) Mast System full height 18 meter or more. (iii) One Section Length 2m or less (iv) Operational wind speed 80 km/hr or more with payload (v) Survivable wind speed 120 km/hr (vi) Weight 120 Kg or less (excluding weight of accessories)

6. **Special Instructions on Demo if any.**
the TEC stage.

Demo on NCNC basis at

7. **Any other specific instruction.** Nil

