

MBRFE V5: MULTI-BAND RADIO FREQUENCY EQUIPMENT VERSION 5

High-power, high reliability, transmit and receive amplifier with robust filtering to complement L3Harris line of modems

The L3Harris MBRFE has proven performance for airborne, ground and maritime operations as a quad-band (L-, S-, C- and Ku-Band) capable signal amplifier for both transmitting and receiving paths commonly used with VORTEX® S modem, ROVER® 6S modem and STINGER antennas.

PRODUCT DESCRIPTION

The MBRFE is an FDD full duplex, quad-band amplifier. It is compact, lightweight and complements various antennas and modems. The MBRFE enables extended range performance, link diversity and interference mitigation. With features like integrated heat exchangers and fans to

facilitate cooling, the MBRFE amplifier can operate in more austere environments. The MBRFE maintains a low size, weight and power (SWaP) and has been designed to MIL-STD-810G environmental requirements for airborne and ground.



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Compact, Bi-Directional
Amplifier for Extended
Range Performance

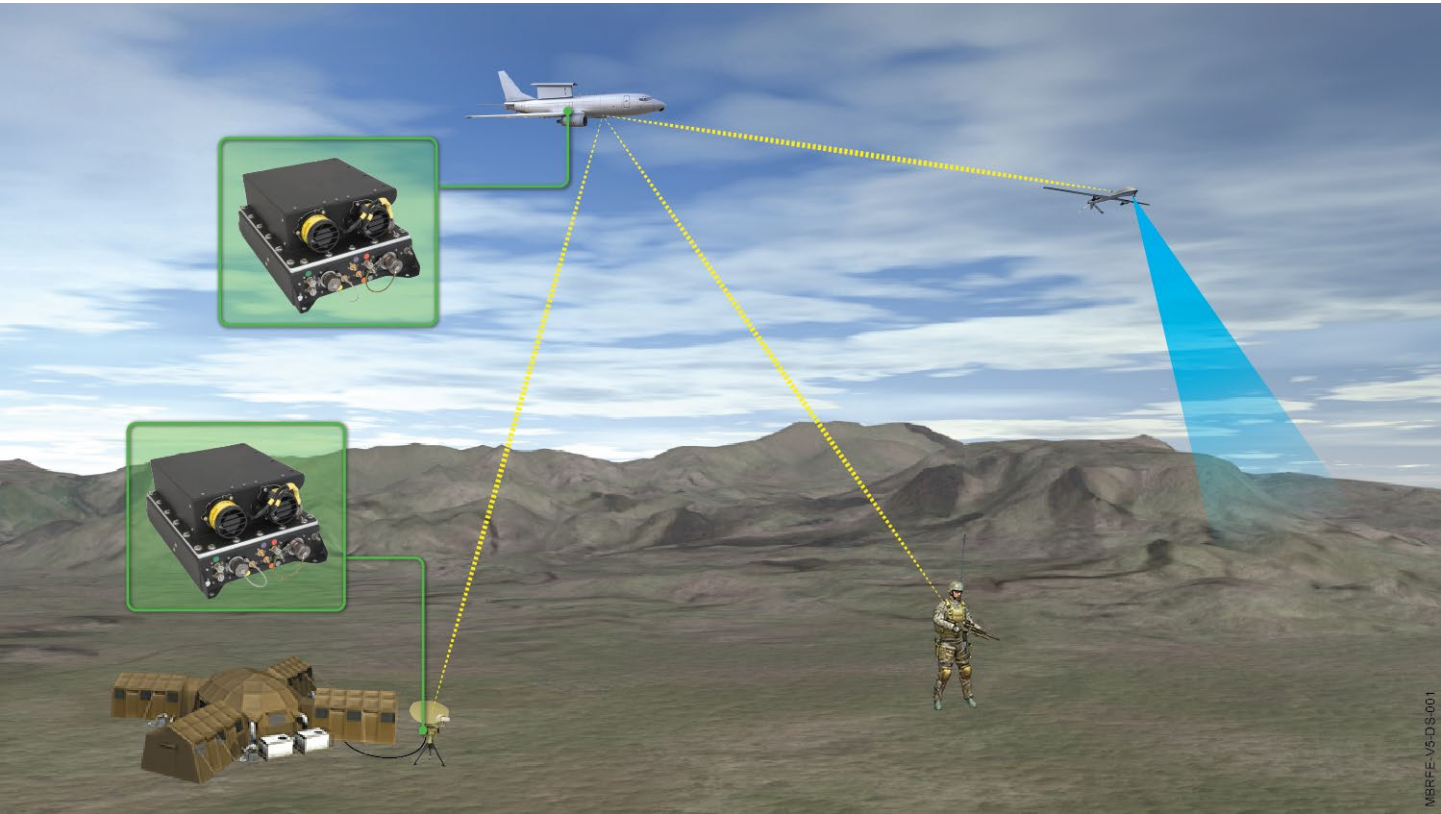
KEY FEATURES

- > Field proven—rugged and reliable at 10 watts out across all bands
- > Amplification enables full over-the-air use of the transceivers band of operation
- > Integrated low noise amplifiers (LNA)
- > RS-485 pass-through for transceiver control of L3Harris directional antennas
- > Ruggedized packaging

SPECIFICATIONS

PERFORMANCE CHARACTERISTICS						
FREQUENCY BANDS	L-Band	S-BAND	C-BAND (LOWER)	C-BAND (UPPER)	Ku-BAND (LOWER)	Ku-BAND (UPPER)
Tx and Rx	1.625 GHz-1.85 GHz	2.025 GHz to-2.5 GHz	4.4 GHz-4.94 GHz	5.25 GHz-5.85 GHz	14.4 GHz-14.83 GHz	15.15 GHz-15.35 GHz
Tx Power	10 W minimum	10 W minimum	10 W minimum	10 W minimum	10 W minimum	10 W minimum
Rx Gain Minimum	30db	30dB	30dB	27dB	30db	30db

PHYSICAL CHARACTERISTICS	
Size	8.792" W x 12.69" D x 5.29" L
Weight	15.9 lbs
Prime Power	28 VDC, 202 W Max
Operating Temperature	-40 °C to 71 °C
Environment Performance	MIL-STD-810G



The MBRFE V5 supports multi-domain operations, enabling communications across both airborne and ground station configurations

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