TIMBER SWEET AUSTRALIA

DATASHEET

M-FEAR · MINIATURE FRONT END

The world's most affordable Link 16 transceiver.



Enabling BLink in contested environments. M-FEAR is an attritable, low-cost, software defined transceiver designed to enable tactical communications in contested areas without putting cryptographic items at risk. Designed to support Beyond Line-of-Sight Link (BLink) operations.

SOFTWARE DEFINED | CRYPTO-LESS | LOW SWAP | COTS

<1.36 kg	30 MHz–3 GHz	8×8 MIMO
12.7 × 9.1 × 4.8 CM	BASE FREQUENCY RANGE	8 RX + 8 TX CHANNELS

LOW SWAP

Small and light

Low size and weight enable Link 16 on small attritable platforms for the first time.

AFFORDABLE COTS

Best price on the market

A high-quality product and support as a Commercial Off The Shelf (COTS) item.

BUILT FOR GROWTH

Ready for new waveforms

Delivered with Link 16 basic capability, designed for future waveform growth and expansion.

PLATFORMS

- UAVs
- USVs
- Pre-deployed fixed sites
- Roll-on roll-off kits
- Pod-based solutions

TIMBER SWEET AUSTRALIA

Low Loss Solutions Pty Ltd trading as Timber Sweet Australia
ABN 33 664 010 315 · Newcastle NSW, Australia
M-FEAR is developed by Timber Sweet (USA). For U.S. and other international enquiries, please contact Timber Sweet: timber-sweet.com

enquiries@lowlosssolutions.com.au
Datasheet · November 2026

SPECIFICATIONS AND CAPABILITIES

M-FEAR at a glance.

Frequency range
Base: 30 MHz to 3 GHz · Future growth: 0 MHz to 7.125 GHz

Clock reference
5 ppb precision TCXO for high timing stability and network synchronisation

Instantaneous bandwidth and MIMO
Wideband direct RF sampling with up to 2.5 GHz instantaneous bandwidth per channel. Full 8×8 MIMO (8 RX + 8 TX) for advanced anti-jam, beamforming, direction finding and multi-channel operations.

Link 16 operations
"Black side" Link 16 capability when paired with a compliant red waveform and cryptographic processing. Single antenna operation with growth to dual antenna. Standard Link 16 message types and single reception. Enhanced Throughput (ET) modes, with growth to Concurrent Multi-Netting (CMN-4) for increased data throughput and multi-net receive.

Transmit power
10 W with variable power control

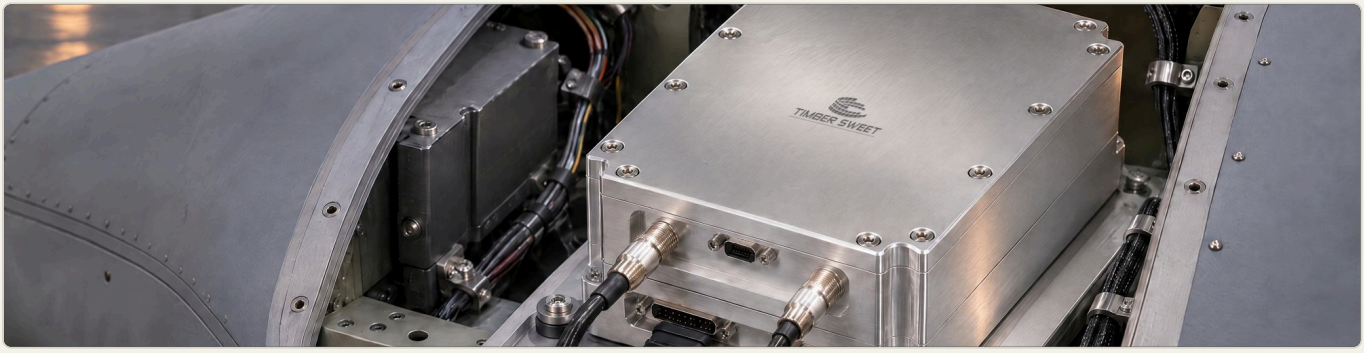
Power consumption
+12 V nominal input (DC/DC conversion external where required). Average system power 25 W maximum. Peak during transmit slots 100 W.

Size and weight
12.7 × 9.1 × 4.8 cm (5 × 3.6 × 1.9 in) · under 1.36 kg (3 lb)

Environmental
Operating –40 °C to +70 °C. Designed for MIL-STD-810H Method 514.8 Category 24.

EMI / EMC
Designed for MIL-STD-461H

Future growth
Modular front-end variants for growth waveforms such as HF, UHF/VHF, SATURN, TTNT, SATCOM, Link 182 or 5G



AVAILABILITY: COMING SOON, MID 2027

ITEM	PART NUMBER
M-FEAR transceiver	TSC-MFR-001
M-FEAR integration kit	TSC-MFR-002
M-FEAR support equipment	LITE KIT: MFEAR
M-FEAR / BLink operator training	TSC-TRN-MFR-001

Imagery is illustrative and AI-generated, based on product images courtesy of Timber Sweet. It does not depict actual ADF personnel, equipment or operations and does not imply Defence endorsement. Content is from the Timber Sweet M-FEAR datasheet (August 2026) and may change. © 2026 Low Loss Solutions Pty Ltd trading as Timber Sweet Australia.

TIMBER SWEET AUSTRALIA

Low Loss Solutions Pty Ltd trading as Timber Sweet Australia
ABN 33 664 010 315 · Newcastle NSW, Australia
M-FEAR is developed by Timber Sweet (USA). For U.S. and other international enquiries, please contact Timber Sweet: timber-sweet.com

enquiries@lowlosssolutions.com.au
Datasheet · November 2026