



BORN TO SURVIVE

mBLC-1

1 WATT C BAND BLOCK-UP CONVERTER

FEATURES:

- Output Power (at 1 dB compression) 30dBm
- Synthesized L.O.
- External Reference
- Weight: 1.9 Kg
- Dimensions: 216 X 136 X 53 mm
- Operating Temperature
-40 to +55 Deg. C
- Weather Sealed
(including connector)
- Available in all C-band frequencies
(C-band, Palapa, InSat)

The C Band VSAT upconverter transmitter is a linear outdoor unit used for the uplink of a VSAT network.

Its new design and light weight makes it ideal for direct mounting on the VSAT antenna feed or OMT.

Its competitive pricing and large install base in countries with extreme weather conditions makes the mBLC-5 an ideal choice for all VSAT and SCPC applications.

PERFORMANCE CHARACTERISTICS

Electrical

Input impedance..... 50Ω / 75Ω
 Input VSWR..... 2:1

Band	C-Band	In -Sat Band	Palapa
Input frequency	950-1525 MHz	975-1275 MHz	1075-1435 MHz
Output frequency	5.85-6.425 GHz	6.725-7.025 GHz	6.365-6.725 GHz
L.O. Frequency	4900 MHz	5750 MHz	5290 MHz
Belcom model	mBLC-1	mBLIN-1	mBLPA-1

Output power (at 1 Gain compr.).....+30.0dBm (min.)
 Gain(Nominal).....50±3 dB

Gain Flatness
 Over any 36 MHz band.....±0.75 dB max
 Over frequency range.....±2.0 dB max

Gain Stability (over temp.for constant freq.) ±2.0 dB
 Ref. signal...External 10MHz(std.) 0 ±5dBm
 Spectrum sense.....Non Inverting
 Total frequency accuracy.....Control by Reference

Phase noise
 At 100 Hz offset..... -60 dBc/Hz
 At 1 KHz offset..... -70 dBc/Hz
 At 10 KHz offset..... -80 dBc/Hz
 At 100 KHz offset..... -90 dBc/Hz
 At 1 MHz offset..... -100 dBc/Hz

Leakage and Spurious Signals

Up to 1 dB comp. In-Band -20 dbm max
 3rd Order intercept point, IP3.....38 dbm (min)
 Stability: The unit will not oscillate under any condition of load, temperature or DC supply.

Protection

Thermal runaway protection
 No failure for any combination of load reflections
 DC supply spikes protection
 Missing 10MHz Ref. shuts transmitter to -30dBm max
 Input DC voltage.....+15 to +24V
 DC power consumption (max).....1.8W

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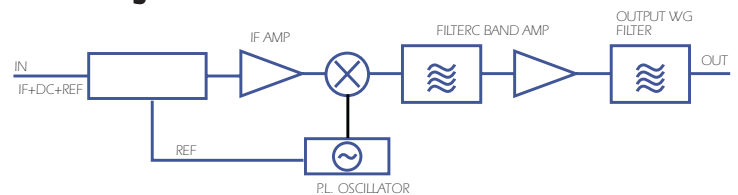
Mechanical

IF + DC + reference input.....75Ω, F-type (f)
 50Ω, N-type (optional)
 RF output.....CPR-137
 Weight.....1.9 Kg.
 Finish.....White polyurethane paint

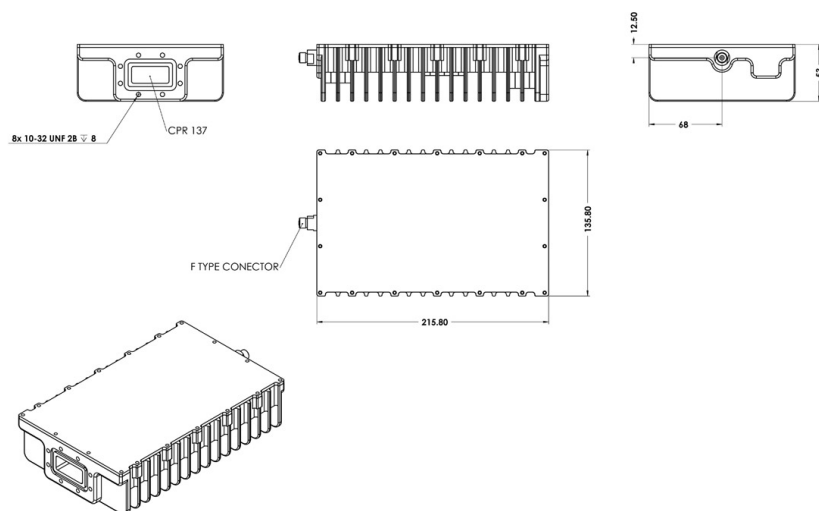
Environmental

Operating Temperature.....-40°C to +55°C
 Sealing.....Moisture sealing by O-ring
 Weather-proof

Block Diagram



Outline Drawing (Dimensions in mm)



Ordering Information

mBLC-1 C-band 1W BUC
 mBLIN-1 In Sat Ext. C 1W BUC
 mBLPA-1 Palapa Ext. C -band 1W BUC

Specifications subject to change without prior notice