

USC-1 UPSTREAM CONVERTER



The EMCEE USC-1 is a commercial grade Upstream Converter intended for wireless Internet applications. Primarily designed to enable **two-way** wireless architectures, the USC-1 can operate within input ranges from 2150 through 2700 MHz and provide fixed outputs within 27-73 MHz for interface with head-end demodulator/router systems. Upstream data rates in the megabit/sec range can be realized without the attendant requirement for costly wide bandwidth telephone lines at the point of presence and the subscriber can become entirely independent of all incoming hardwire connections. With sufficient transmitting antenna bandwidth and guard space between upstream and downstream frequencies, duplexed system architectures, with attendant reductions in cost and occupied space, can be achieved. The USC-1 is configured within a standard EIA compatible equipment drawer for ease of mounting and access.

UPSTREAM CONVERTER

Model USC-1 (UC-2500)

Performance / Mechanical Characteristics

ELECTRICAL CHARACTERISTICS

Input Frequency	2.150 - 2.162 / 2.305 - 2.320, 2.345 - 2.360 / 2.5 - 2.7 GHz
Output Frequency	27 - 73 MHz
Local Oscillator	Fixed L.O. frequency selected per input/output frequency configuration
L.O. Injection Scheme	Inverting or Non-Inverting
Bandwidth	2 - 12 MHz
Frequency Stability	±500 Hz
Operating Temp. Range	0°C to 40°C
Conversion Gain	40 dB
Noise Figure	3.0 dB
Maximum Input Level	-30 dBm
Spurious Products	-60 dB
IM3	Better than -55 dB
Phase Noise	-90 dBc/Hz at 10 KHz Offset
Group Delay	±10 Nanoseconds
Image Rejection	50 dB

GENERAL / MECHANICAL

Dimensions	19" H x 12" W x 5.25" D
Input Impedance / Connector	50 Ohms, Type N
Output Impedance / Connector	75 Ohms, Type BNC/F
AC Input	115/220 VAC, 50/60 Hz, 50 Watts

Specifications subject to change