

The Proxim CA2418 is a bi-directional frequency translator and amplifier that enables any 2.4 GHz Spread Spectrum or OFDM radio to operate in the 1.8 GHz government band. It works especially well with the Proxim 2.4 GHz MP.11 as well as any 802.11a/b/g Access Point such as the AP4000M or any client device. The converter is completely transparent to the user and simply down-converts the 2.4 GHz radio signals to the 1.8 GHz band during transmit, and up-converts 1.8 GHz to 2.4 GHz signal on receive. No user adjustment, configuration or provisioning is required. This converter amplifier has been certified by the NTIA review committee to operate in the 1.8 GHz band when used in conjunction with the Proxim 2.4 GHz MP11 radio.

The CA2458 is available in two configurations:

- A single piece indoor/mobile version that is designed to be co-located with the radio and connects to it with a short coax cable. A rugged DC power jack provides power to the unit. It operates on 11 to 15 VDC and is ideally suited for mobile or battery operated solar powered sites.
- A pole mounted version mounts next to the outdoor antenna. This version has 8 dB more transmit and receive gain to compensate for signal loss through the coax cable connecting the pole mounted converter to an indoor mounted radio. This version also includes an indoor Power-Over-Coax DC Power Injector that sends the DC power to the pole mounted converter over the coax. No separate DC power cable is needed.

Key Features:

- Unit is in a weatherproof cast aluminum case
- Built-in status LED's
- Integral lightning and surge protection
- Type N connections
- No user adjustments required
- Fully automatic operation
- Low Noise Figure for receiver Pre-amp
- Internal 1.8 GHz bandpass filters prevent strong out-of-band receive signals from overloading the front-end
- Operates with transmit power input power as low as 2 milliwatts at input (+3 dBm)
- Available in two versions:
 - o Single piece indoor/mobile version with DC power jack on the top
 - o 2-pc pole mounted version with indoor power over coax DC Injector. Power provided to the 2-pc version over coax cable. No separate power cable is required to Converter
- Internal switch mode power supplies offer high efficiency power draw
- Operates on 11 – 15 VDC
- Made in the USA



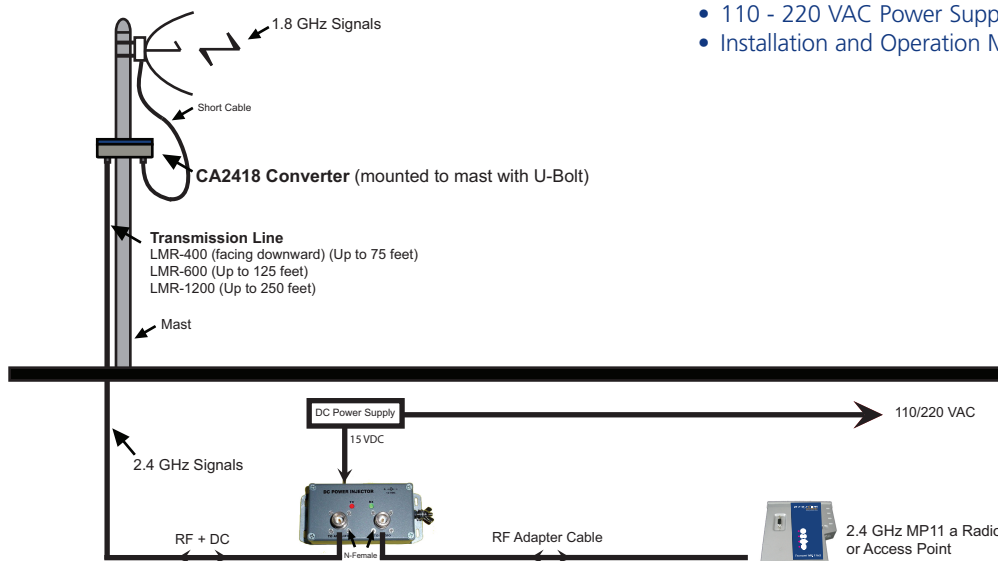
Indoor/Mobile version Package Includes:

- Converter with DC power jack on top lid
- Threaded screws (#10) for mounting
- Installation and Operation Manual

2-pc Outdoor version Package Includes:

- Pole mounted Converter Amplifier
- Mounting Hardware
- DC Power Injector
- 110 - 220 VAC Power Supply
- Installation and Operation Manual

Installation Details:



CONVERTER AMPLIFIER CA2418

GENERAL SPECIFICATIONS

FREQUENCY RANGE	<ul style="list-style-type: none"> • From Radio: 2397 thru 2487 MHz • Over the air: 1755 to 1850 MHz
OPERATING MODE	Time Division Duplex. Automatic switch-over to transmit
RF CONNECTORS	N-Female
DC POWER JACK	2-pin waterproof, (Switchcraft EN3P2M16)
LED INDICATORS ON CONVERTER	<ul style="list-style-type: none"> • Synthesizer Lock: Green • RX Mode: Green • TX On: Yellow • TX Overload: Red
LED INDICATORS ON DC INJECTOR	<ul style="list-style-type: none"> • TX On: Red • RX Mode: Green
LIGHTNING PROTECTION	<ul style="list-style-type: none"> • Direct Ground at jack to antenna • Direct Ground in DC Power Injector
DC SURGE PROTECTION	TVS on DC input, 600 Watts
FREQUENCY STABILITY	+/-2.5 ppm over temp. and aging
LOCAL OSCILLATOR	640 MHz

RECEIVER / DOWN CONVERTER SPECIFICATIONS

RX CONVERSION GAIN	<ul style="list-style-type: none"> • 2-pc outdoor version: 16 dB (min) • 1-pc indoor/mobile version: 6 dB (min)
FREQUENCY RESPONSE	+/-1 dB across operating range
RX NOISE FIGURE	4 dB typical

TRANSMITTER / UP CONVERTER SPECIFICATIONS

POWER OUTPUT	8 Watts peak, 1W avg. with OFDM
TX CONVERSION GAIN	<ul style="list-style-type: none"> • 2-pc Outdoor version: 26 dB (nom.) • 1-pc indoor/mobile version: 18 dB (nom.)
TX DUTY CYCLE	75% maximum
TX INPUT LEVEL AT CONVERTER INPUT	<ul style="list-style-type: none"> • 2-pc Outdoor version: +2 to +6 dBm at pole mounted converter • 1-pc indoor/mobile version: +10 to + 14 dBm
INPUT VSWR	1.5:1 maximum
FREQUENCY RESPONSE	+/- 1 dB over specified range

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE RANGE	-30° C to +60° C
HUMIDITY	Up to 100% - outdoor enclosure water resistant, if mounted per instructions
POWER SPECIFICATIONS	
DC POWER	11- 15 VDC RX Mode: < 4W TX Mode : < 24W

PHYSICAL SPECIFICATIONS

DIMENSIONS	Converter Box: 4.8" W x 6.8" L x 2.2" deep (less N connectors) DC Injector Box: 2.4" W x 5.7" L x 1.3" tall (less N connectors)
WEIGHT	Converter Box: 2 lbs (approx) less mounting bracket DC Injector Box: 1 lb (approx)



Proxim Wireless Corporation
www.proxim.com

For detailed technical specifications, please go to <http://www.proxim.com/>

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DS_0408_MP11_HS_CA_US CPN 75071

CONVERTER AMPLIFIER CA2418

WI-FI FREQUENCY CONVERSION CHART

WI-FI CHANNEL	2.4 GHz	1.8 GHz
1	2412	1772
2	2417	1777
3	2422	1782
4	2427	1787
5	2432	1792
6	2437	1797
7	2442	1802
8	2447	1807
9	2452	1812
10	2457	1817
11	2462	1822
12	2467	1827
13	2472	1832
14	2477	1837

PROXIM WIRELESS MP.11 HS RADIO FREQUENCY CONVERSION CHART

CHANNEL	2.4 GHz	1.8 GHz
1	2397	1757
2	2402	1762
3	2407	1767
4	2412	1772
5	2417	1777
6	2422	1782
7	2427	1787
8	2432	1792
9	2437	1797
10	2442	1802
11	2447	1807
12	2452	1812
13	2457	1817
14	2462	1822
15	2467	1827
16	2472	1832
17	2477	1837
18	2482	1842
19	2487	1847



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