



Amplifiers

DATA SHEET

PCS 200W MCPA Module

MCPA-1900-200W-M



- PCS 200W MCPA (Power Amplifier)
- Highly linear amplifier with low intermodulation
- Internal microprocessor circuit controls all functions, maintains long term (thermal) and short term (distortion) functions, and generates status and alarms
- Auto-reboot feature will automatically restart the MCPA module in case of power interruptions

Overview

Communication Component Inc.'s Multi-Carrier Amplifier (MCPA) Module is a highly efficient design that is an integral part of CCI's complete turn-key MCPA system. The MCPA module supports multiple formats such as GSM, EDGE, CDMA, CDMA 1X, EV-DO, and UMTS. The MCPA combines multiple radios on high radio count sites to reduce the required number of feeders without impacting coverage. Additionally, multiple modulation types may be combined in the MCPA providing combining solutions for both 2G and 3G technologies simultaneously. CCI's MCPA is a key element in upgrading or cositing existing (growth) or new base stations.

Technical Description:

CCI's MCPA employs a high efficiency Feed Forward design that works with multiple modulation formats simultaneously. Multi-loop architecture reduces the number of components and increases reliability. An internal microprocessor circuit controls all functions, maintains long term (thermal) and short term (distortion) functions, and generates status and alarms. An auto-reboot feature will automatically restart the MCPA module in case of power interruptions. Fans are alarmed and hot swappable, requiring only common tools to change. Module efficiency is greater than 16% due to an advanced Dorrety type architecture which also reduces current consumption during low traffic periods. Intermodulation distortion is extremely low, better than -65 dBc typical, due to a custom pre-linearizer circuit. Dry contact alarms are also provided for simple interface to existing base station alarm reporting circuits.



Amplifiers

SPECIFICATIONS

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Electrical

RF Parameters	Ports	Frequency(MHz)	Specification ¹
Return Loss	INPUT	1930-1990	15 dB min.
	OUTPUT	1930-1990	15 dB min.
Output Power	OUTPUT		200W
Gain	INPUT - OUTPUT	1930-1990	63 dB nominal
Gain Variation Over Temperature	INPUT - OUTPUT	1930-1990	±0.75 dB
Passband Flatness	INPUT - OUTPUT	1930-1990	±1.0 dB
Operating Bandwidth			40 to 60 MHz

¹ Note: with 8 GSM and 1 UMTS carriers

General Characteristics

Impedance	50 ohms
Out of Band Spurious	Meets FCC
Module Efficiency	16.5%
Operating Voltage	+26 VDC to +28 VDC
Current Draw @ 200W Output Power	46 Amps

Environmental

Operating Temperature	-25 °C to +65 °C
Relative Humidity	0% - 99%
Operating Altitude	Up to 13,000 feet

Mechanical

Connector (Input)	1 x SMA-female
Connector (Output)	1 x N-female
Dimensions (w/o Front Panel and Fan Module)	3.9" (W) x 13.4" (H) x 17.5" (D)
Dimensions(with Front Panel and Fan Module)	3.9" (W) x 17.5" (H) x 19.0" (D)
Weight	30 Lbs. (13.6 kg)
Mounting	Can be mounted vertically as part of an MCPA solution set, or horizontally in an optional 19" tray mount

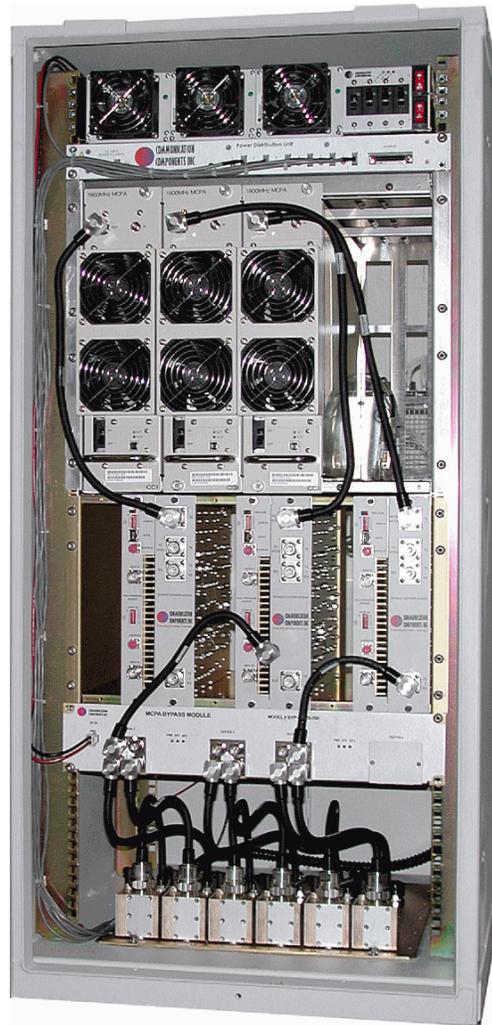


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Example showing MC1900-200 as a part of an MCPA System



Amplifiers

STANDARDS & CERTIFICATIONS

PCS 200W MCPA Module

MCPA-1900-200W-M

Parts & Accessories

MCPA-1900-200W-M PCS 200W MCPA Module

Standards & Compliance

Safety EN 60950-1, UL 60950-1

Emission FCC Part 15 Class A

Environmental EN 60529 IP20

Certifications

Federal Communication Commission (FCC) Part 15 Class A, CE, ISO 9001



CCI Communication Components Inc.
EXTENDING WIRELESS PERFORMANCE