

PRODUCT  
ANNOUNCEMENT



## OneBase™ MCPA Cell Extender Micro-3 Cabinet

Micro Cabinet Multicarrier Power Amplifier System for  
PCS Outdoor Applications

Andrew OneBase™ MCPA Cell Extenders provide power, efficiency, and flexibility—in product and supplier performance—unmatched in global telecommunications.

Andrew supports today's need for extended cell capacity, coverage, and spectrum use in cost efficient, high-performing base stations with the OneBase™ MCPA Cell Extender product line.

OneBase™ MCPA Cell Extenders are designed in a new, modular architecture platform that delivers significantly higher power and efficiency at a competitive price. Andrew leverages global manufacturing and resources to respond to any demand.

Multicarrier power amplifiers support single and multi-mode operation for multicarrier cell extender needs.

Designed to provide signal amplification and conditioning for both uplink and downlink signals, the OneBase™ MCPA Cell Extender Micro-3 Cabinet includes the following features:

- 125W Composite Power per antenna path
- RF Bypass provided during Power Source Failure or Sector Critical
- Compact solution enables Unistrut®, pole, or wall mounting
- Smallest configuration for three sector coverage
- Single cabinet supports up to three sectors
- Modular design for simplified field installed configurations

# OneBase™ MCPA Cell Extender Micro-3 Cabinet for PCS Outdoor Applications

## Characteristics

- Up to three antenna paths
- Single MCPA module per antenna path
- -40° C to +50° C operation
- High power density with 160 W of Tx power at the MCPA output
- +27VDC and -48VDC power options available
- Integral Cabinet cooling system with redundancy
- Extensive Remote Monitoring through RF Interface Module
- BTS hanger, pole, wall, or Unistrut® mounting
- Duplex and simplex filtering provides input signal conditioning as well as out-of-band Tx emissions and Rx interference mitigation
- Optional duplex filter with LNA
- RX path DC coupled for TMA support
- RF Bypass triggered by power source failure or sector critical
- Optional Antenna Switching with main antenna line VSWR failure
- Installed and maintained by Andrew Corporation extensive global field support

## System Specifications

Frequency bands	PCS band: 1850–1910 MHz, 1930–1990 MHz
Output power	125 W maximum composite
System downlink gain (adjustable)	-9 dB to +12 dB (PCS)
Cabinet Capacity	Up to Three MCPA Modules
Environmental Protection	IP54
AC Input Power	90–250 VAC, single phase
Power Consumption	<1.4 KW base system with one antenna path, <3.6 KW with three paths
Operating temperature	-40° C to +50° C (cold start at -40° C, full performance at -20° C)
In-band emissions	-13 dBm/MHz
Receive path insertion loss	-2.7 dB (RX1), -2.3 dB (RX2), typical
Dimensions	406mm (W) x 876mm (D) x 914mm (H) [16" W x 34.5" D x 36" H]
Weight	95kg (210lbs) base system with one antenna path, 160kg (350lbs) with three paths, max
Alarms (Form C, via terminal block)	Minor, Major, Critical (MCPA Module); Power, System Fan; Intrusion

## MCPA Module Specifications

Frequency band	PCS band: 1930–1990 MHz
Instantaneous Bandwidth	>60 MHz
Efficiency	17% at rated output power
Rated output power	160 W average at $\geq +23.5$ to 30 Vdc input 130 W average at $\geq 21.0$ to $< +23.5$ Vdc
Transmit band linearity	-63 dBc, In-Band minimum
Harmonics	-40 dBc, minimum
Input, dc	21–30 Vdc operational (27 Vdc nominal, 23.5–30 Vdc full specification)
Current, dc	35A typical, per MPCA module at nominal voltage
Dynamic range	28 dB
Gain	+56.0 dB $\pm$ 0.25 dB
Gain flatness	$\pm$ 0.5 dB, pk-to-pk
Gain vs. temperature	$\pm$ 0.5 dB
Operating temperature	-40° C to +50° C (cold start at -40° C, full performance at -20° C)
Physical dimensions	438mm (H) x 95mm (W) x 470mm (D) [17.25" H x 3.75" W x 18.5" D]
Weight	15.9 kg (35lbs.)
Alarms/Status	Temperature, VSWR, overdrive, Gain, Pin/Pout, Voltage and Current



[www.andrew.com](http://www.andrew.com)

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