

Motorola Micro BTS

SC™480 Overview



Increased Flexibility

Scalable Channel Capacity

Scalable Carrier Count

Flexible Technology Options

Scalable RF Power

Increased Flexibility

Motorola's new SC480 micro base station offers operators more flexibility than ever before. The SC480 incorporates the features and architecture benefits of Motorola's flagship SC™4812 product line in a compact (58 liter volume) platform. This allows operators to make use of the same packet backhaul, 1X, and DO technologies used in the SC4812 platform. Based on the industry leading and field-proven Super Cell (SC™) architecture, the SC480 base station is designed for optimum efficiency in low capacity coverage cell sites. The SC480 base station addresses the need for scalable capacity, carriers and output power. This broad flexibility provides solutions for applications from rural, low-capacity coverage to dense urban, in-building coverage.

Scalable Channel Capacity

The SC480 platform scales from 16 to 192 1X/IS-95 channel elements via software and hardware expansions.

Scalable Carrier Count

The SC480 unit can scale from 1 to 8 carriers via board level expansions and frame expansions. Each SC480 can support up to 2 omni carriers. Expansion frames can accommodate further expansion. This configuration allows the operator to easily and cost effectively match the number of carriers in building with the macro system carrier count, improving overall system level capacity, call quality and coverage.

Flexible Technology Options

The product can be configured for 1X, EV-DO, or simultaneous EV-DO and 1X support. In addition, the unit will be field upgradeable to new technologies such as EV-DV via board level upgrades.

Scalable RF Power

An optional 20W (15W with GSM Elimination Filter) power amplifier (PA) can be implemented for broad coverage applications. Up to 2 PA's can be implemented per site for a total of 40W (30W with GSM Elimination Filter) output power for multi-carrier configurations. Implementations without the PA can be used for self-powered, in-building antenna distribution systems.

SC480 Specifications

Frequency Range:

800 Transmit: 869 – 894 MHz
800 Receive 824 – 849 MHz

1900 Transmit: 1930 – 1990 MHz
1900 Receive 1850 – 1910 MHz

Capacity:

Carriers: 2 Carriers/Cabinet
(8 Carriers/Site)
Physical Channels: 192 Physical Channels/
Cabinet(768 Channels/Site)

Power Output:

Standard Power: 0.25 mWatts per Cabinet
High Power Options: 20 Watts per PA (40W Total)
High Power w/GSM Filter: 15 Watts per PA (30W Total)

Cabinet Dimensions:

Frame: 450mm (H) x218mm(W)
X600mm (D)
PA: 228mm (H) x495mm (W)
x283mm (D)
PA with GSM Filter: 295mm (H) x495mm (W)
x261mm (D)

Weights:

Indoor Cabinet: 26 kg
Outdoor Cabinet: 65 kg
PA: 15 – 20kg (varies by
frequency and options)

Input Power:

+27 VDC/-48VDC

Operating Temp:

Indoor: 0 C to +50 C
Outdoor: -40 C to +50 C



In-building Applications

For in-building applications, the SC480 can be implemented without a PA. The device makes use of the board level output power of the broadband transceiver. The output power of .25 mW (-6dB) from the BBX can be used as direct input to fiber fed repeater systems of self powered in building antenna systems provided by third party vendors.



Outdoor Option

An optional Thermal Management Enclosure (165L volume) is available for outdoor configurations. The outdoor enclosure provides weather protection for the SC480, heating and cooling as well as 19-inch rack space for optional customer equipment. The total weight of the device, including base station, is 65kg. In addition, a Power Distribution Element (PDE) can be purchased which consolidates many of the ancillary requirements of a base station such as AC/DC conversion, battery charging, primary surge suppression, and lightning protection.

To learn more about Motorola's Micro BTS - **SC™480** and our full portfolio of network solutions, call your Motorola representative or visit our website:
www.motorola.com/networkoperators



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