



## Horizon II *micro*

Motorola's Horizon II *micro* base station is a small, easy to deploy solution designed for both indoor and outdoor applications

The Horizon II *micro* is a small GSM base station ideal for rapid deployment in concentrated high traffic hotspots and coverage in-fill situations. As subscriber density increases, additional units can be deployed to create contiguous micro-cell coverage – just where it is needed.

### Benefits

#### Adaptable and Robust

The Horizon II *micro* offers service providers a fully featured micro-base station designed for concentrated in-fill, hotspot capacity relief or in-building coverage applications that can be deployed indoors or outdoors.

The Horizon II *micro* offers excellent coverage capabilities due to its receive diversity capability and link budget sensitivity characteristics.

The 'standard power' configuration delivers 2W per carrier (at 900MHz) and can be used for focused coverage applications, while for wide area, low density coverage, a 'high-power' option with up to 63W is available making it a very cost effective entry level coverage solution.

#### High Performance GSM

The Horizon II *micro* is a highly capable base station utilizing Motorola's CTU2D transceiver to deliver high performance and reliability while optimizing network spares holding requirements.

Motorola's CTU2D radio operates in either the EGSM900 or GSM1800 bands and supports GSM Half Rate, Adaptive Multi-Rate (AMR), GPRS and EDGE technologies.

#### Rapid Installation

The Horizon II *micro* is small and lightweight; typically installations take around 30 minutes once power and communication links are prepared.

The Horizon II *micro* can be pole or wall mounted, offering a wide range of discreet deployment locations.

#### Expansion Beyond the Cabinet

Utilizing Motorola's remote radio head unit, the RCTU4, in combination with the BBU base band site controller, carrier capacity can be expanded further with the addition of up to six additional RF heads, offering the possibility of 24 further carriers depending on the site controller loading. The RCTU4s can also be located to distances over 20km away, via the fast fiber connection to the base station, offering even more flexibility to this versatile base station.

# Specifications

## Guidelines

The Site controller configuration provides the total number of carriers available at a site and is dictated by service class, the software load and network elements of the end to end system.

(Numbers shown for Full Rate GMSK under a Horizon 2G RAN Controller)

Additional in-cabinet radio numbers can be provided via daisy chaining of ancillary cabinets under the control of a single "master" base station.

For CTU4 and RCTU4 the maximum RF output powers are stated as MC-BTS Class I and the maximum radio carriers are stated as MC-BTS Class II.

## Horizon II *micro*



Size: 590mm (H) x 590mm (W) x 250mm (D)

Weight: ≤32kg (excluding battery)

Power Supply: 220VAC

Power Consumption:

Micro cell mode: 250W

Macro cell mode: 480W

Operational Environment: -40°C to 50°C

ETSI EN 300 019-1-1 Class 1.3E (storage)

ETSI EN 300 019-1-3 Class 3.2 (Operational Indoor)

ETSI EN 300 019-1-4 Class 4.1 with extended temperature range -40°C to +50°C (Operational Outdoor)

Type Approval:

Type Approval: ETSI EN 301-502

EMC: ETSI EN 301 489-8

Safety: EN60215, IEC60215, EN60950, IEC60950 EN50385, IEC50385

Environmental Approval:

2002/95/EC Restriction of the use of certain hazardous substances in electrical and electronic equipment

2002/96/EC waste electrical and electronic equipment WEEE

94/62/EC Packaging and packaging waste

Maximum Number In-Cabinet Radios: 1

## Site Controller Configurations

Maximum Number Controllers: 1

Maximum Number Carriers:

HIISC2 (CTU2D only): 8

BBU (CTU2D): 8

BBU (RCTU4): 24

BBU (Total): 32

## Radio Configurations

### Per CTU2D In-Cabinet Radio

Maximum Number Carriers: 2

Number Sectors: 1

Maximum RF Output Power *EGSM900*:

Single Carrier: 63W

Double Carrier: 20W

Double EDGE: 10W

Maximum RF Output Power *GSM1800*:

Single Carrier: 50W

Double Carrier: 16W

Double EDGE: 8W

Receive Sensitivity:

EGSM900: -112.5dBm

GSM1800: -113.5dBm

### CTU4 In-Cabinet Radio not supported

Maximum Number Carriers: 0

Number Sectors: 0

Maximum RF Output Power *EGSM900*:

Single Carrier: 40W

Multi Carrier: 20W

Multi EDGE: 15W

Multi E-EDGE: 10W

Maximum RF Output Power *GSM1800*:

Single Carrier: 32W

Multi Carrier: 16W

Multi EDGE: 12W

Multi E-EDGE: 8W

Receive Sensitivity:

EGSM900: -112.5dBm

GSM1800: -113.3dBm

### Per RCTU4 Remote Radio Head

Maximum Number Carriers: 6

Number Sectors: 1

Maximum RF Output Power *EGSM900*:

Single Carrier: 40W

Multi Carrier: 20W

Multi EDGE: 15W

Multi E-EDGE: 10W

Maximum RF Output Power *GSM1800*:

Single Carrier: 32W

Multi Carrier: 16W

Multi EDGE: 12W

Multi E-EDGE: 8W

Receive Sensitivity:

EGSM900: -112.8dBm

GSM1800: -113.6dBm



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