



Horizon 3G-nx APM

Motorola's Advanced Power Module

The Motorola Horizon 3G-nx APM platform provides an outdoor enclosure to provide battery backup, power regulation and telecoms equipment storage. It is an ideal solution for an outdoor macro Basestation, utilizing the Horizon 3G-nx fiber BBU and Remote Radios to provide a scalable UMTS HSPA+ capacity deployment.

Benefits

Physical Design

Motorola's Horizon 3G-nx APM solution provides a weatherproof environment for macro capacity UMTS HSPA+ deployments. It uses the Horizon 3G-nx fiber BBU and RRU modules to provide a flexible solution for a number of remote radio unit configurations in a small outdoor footprint.

Easy and Quick Deployment

The APM can be quickly deployed by simply fixing in place, fitting the BBU and RRU and connecting the external cables before downloading the data configuration file. Installation time and overall network rollout time are thus reduced.

Functionality

As with all Motorola's Horizon 3G platforms, the APM allows flexible, scalable RF configurations. It boasts low power consumption and is future capable via the download of the appropriate software releases.

Controlled Cost of Ownership

Deployment Flexibility: Digital pre-distortion (DPD) and A-Doherty techniques within the power amplifier enhance efficiency, which reduces the system power consumption and lowers OPEX.

By utilizing the same components as the Horizon 3G-nx solution, the cost of ownership for the service

provider reduces as the macro, fiber and mini all use common components thereby reducing spares holdings.

Future Capable: The Horizon 3G-nx APM is capable of HSPA+ including 2x2 MIMO antenna technology, delivering peak data rates of up to 42Mbps in the downlink and 11Mbps in the uplink.

Additional Equipment Support

The APM enclosure supports up to 7U of Communications equipment within the enclosure and facilitates the -48VDC supply for these units.

Fast Time to Revenue

Maximum Revenue Capture: Horizon 3G-nx APM solution supports HSPA, STTD and TSTD open loop and closed loop transmit diversity. These features provide extra capacity and broader coverage for UMTS HSPA+ service delivery while maximizing revenue opportunities.

Specifications

MIMO Options

The Horizon 3G-nx has two options for supporting 2x2 MIMO. The first option is to use two 60W Remote Radio Units to provide a maximum of 2x60W MIMO. The second option is to use the single 80W RRU, that provides support for 2x40W MIMO in a single unit.

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| Size: 700mm (H) x 600mm (W) x 480mm (D) |
| Weight: ≤65kg (excluding batteries) |
| Power Supply: 220VAC, 110VAC |
| Power Consumption: 970W (BBU maximum) |
| Operational Environment: -40°C to 45°C |
| ETSI EN 300 019-1-3 Class 3.1 (Operational Indoor) |
| ETSI EN 300 019-1-4 Class 4.1 (Operational Outdoor) |
| Type Approval: |
| Type Approval: ETSI EN 301-908 |
| EMC: ETSI EN 301 489-1 |
| 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 |

Radio Specifications

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| Supported Frequencies: 2100MHz, 1900MHz, 850MHz, AWS |
| Maximum Number Cells: 24 |
| Maximum Number Carriers: 8 |
| Maximum Number Sectors: 6 |
| Transmit Diversity: Optional |
| Receive Diversity: Two Path, Four Path Optional |
| MIMO: 2x2 Optional |
| Maximum RF Output Power: 60W |
| Receive Sensitivity: |
| Single Path: -125dBm |
| Two Path: -128dBm |
| Four Path: -131dBm |

Capacity

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|-------------------|----------------------------|
| Downlink Peak: | 28.8Mbps (2x2 MIMO) |
| | 21.6Mbps (64QAM, 15 Codes) |
| Uplink Peak: | 5.76Mbps |
| Channel Elements: | Downlink: 1536 |
| | Uplink: 1536 |

Ancillary

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| Remote Radio Units: Supported |
| Remote Electrical Tilt: Supported |
| Customer Equipment Space: Up to 7U |
| Internal Battery Backup: Supported |
| Mounting: Floor |
| Backhaul: E1, T1, STM-1, FE |



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