Mercury Quantum 6600
High Performance, Carrier-Class Base Station

Mercury Quantum 6600™ is a compact, high performance Fixed/Mobile base station that is based on PureMAX™ Smart Antenna beamforming technology. The Mercury Quantum 6600 utilizes 6 antennas designed to work in concert to deliver exponentially better range and capacity than its competition. By directing radio energy where it needs to go, rather than radiating indiscriminately, cell radius is increased, fewer base station are needed to serve any given area, radio interference is reduced, and operational efficiencies are maximized.

Mercury Quantum 6600 is part of the Mercury Quantum family of advanced, compact base stations engineered to support both fixed and mobile applications. Mercury Quantum base stations come in a rugged fully integrated package. They are designed to be deployed outdoors without the need for a shelter and can be easily mounted on utility poles, walls, rooftops, cell towers, -virtually anywhere- without the need for expensive radio heads.

Mercury Quantum base stations operate as part of an open, standards based ecosystem that allows our customers to choose best-of-class components, including a diverse portfolio of CPE and ASN Gateway options. Mercury Quantum base stations are designed to support large mobile deployments, but uniquely can also be deployed in "standalone" mode without an ASN-GW. This offers a simpler and more cost effective solution for operators that are interested in initially rolling-out fixed or nomadic services.

The Software Defined Radio (SDR) architecture allows operators to upgrade their networks by means of remote software updates. As new standards emerge and new functionality becomes available, operators are assured of long-term investment protection.

All Mercury Quantum base stations are compatible with the powerful PureView Network Management System.
ABOUT MERCURY

Mercury Networks is a rapidly growing, privately held company with our corporate office in Fort Wayne, Indiana. The Mercury Quantum 6600 product line consists of award-winning family of compact 4G broadband base station and operating software unmatched in flexibility, performance, and total cost of ownership. The technology has been deployed in over 250 commercial networks worldwide.

For more information about Mercury, please visit our corporate website at: www.mercurynets.com

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SUPERIOR RANGE
The 6 antenna system significantly improves uplink and downlink performance.

EASY DEPLOYMENT
Field Deployable by a single technician in well under two hours.

ASN-GW OPTIONAL
Can operate in stand-alone mode, without an ASN-GW, making even small deployments affordable.

GREATER CAPACITY
Improved link performance increases at any range.

FLEXIBLE MOUNTING
Can be deployed on towers, utility poles, walls, rooftops, etc., without the need for remote RF heads.

COMPLETELY WEATHER PROOF
No Shelter Required.

SOFTWARE DEFINED RADIO
Supports remote field upgrades of new functionalities and standards.

POWERFUL MANAGEMENT OPTIONS
Fully supported by Ceres Management Solution.

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Specifications

Radio
- **Frequency Bands**: 2.3-2.4GHz, 2.48-2.70GHz, 3.3-3.4GHz, 3.45-3.70GHz (IC), 3.65-3.70GHz (US)
- **Channel Size**: 3.5, 5, 7, 10MHz
- **Duplex Method**: TDD
- **Number of Tx/Rx Antennas**: 6x6
- **Tx Power per Antenna**: 33dBm **(RMS data power at maximum MCS level)**
- **Smart Antenna Capabilities**: Beamforming, MIMO Matric A, MIMO Matric B, Cyclic Delay Diversity, MRC, UL SDMA*, UL Collaborative Spatial Multiplexing*
- **Air Link Optimization**: HARQ, CTC

Capacity
- **Active Users**: Up to 200
- **Service Flows per User**: 16
- **Idle-Mode Users**: 2048
- **Peak Throughput/Sector**: Aggregate: Up to 50Mbps
  - UL: Up to 10Mbps

General
- **Standards Compliance**: IEEE 802.16e-2005
- **Backhaul Interface Options**: 2x Gig-E RJ-45, 2x Multi-Mode Optical Fiber, or 2x Single-Mode Optical Fiber, all with inter-sector daisy chain support
- **Modulation**: QPSK, 16QAM, 64QAM
- **QoS**: BE, UGS, rtPS, ErTPS, nrtPS
- **Convergence Sublayer**: IP-CS, Eth-CS, PHS*, IPv4, IPv6*, IPv6 Pass-Through
- **VoIP MOS**: Up to 4.3
- **Security**: AES-128, EAP-TLS, EAP-TTLS, PKMv2
- **Management**: PureView EMS/NMS, Remote CLI, Web Interface, SNMP v2c & v3

Mechanical, Electrical, and Environmental
- **Dimensions**: 17.5” x 16.7” x 5.3” (44cm x 42cm x 13cm)
- **Weight**: 32lbs (14.5kg)
- **Power**: -48 VDC or 110/220 VAC, 180 Watts Max
- **Temperature**: -40C to +55C per ETSI EN 300 019-1.4 Class 4.1E
- **Humidity**: 5-100%
- **Altitude**: To 10,000 feet above sea level
- **Weatherproofing**: IEC IP67
- **Vibration and Dust**: Meets ETSI EN 300 019-1-4 requirements for Class 4.1E
- **Wind Loading**: 160km/hr operation, 200km/hr survival
- **Surge Protection**: UL497B
- **Lightning Protection**: Min 10kA IEC 6100-4-5
- **Safety and IEC IP**: EN 300 019-2-2, GR487, IEC 60529

Connectors
- **DC Power**: Weatherproof circular connector LTW BB-04RME SC7001
- **AC Power**: Circular plastic multi-pin connector
- **Grounding**: M5 ground stud to chassis
- **Cat-5 Backhaul Port**: 2x RJ-45, Weatherproof LTW RJ5-5EPFF-SC7002
- ** Optical Fiber Backhaul Port**: 2x Harting PushPull/Han 3 A 2 x LC duplex
- **RS-232 Maintenance Port**: RJ-45, Weatherproof LTW RJ5-5EPFF-SC7002
- **GPS**: N-type
- **Antenna**: 6x N-type

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* Future software upgrade
** Transmit power subject to local rules and regulations
± Optional via external kit