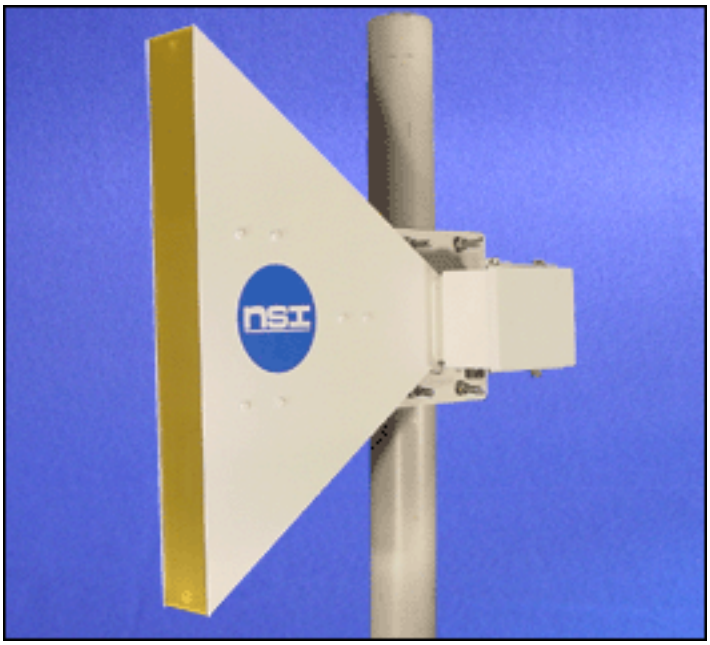
Quad™

Central Receive Antenna System



Features

Advanced Antenna Design

- **Quad polarized**
- **Superior circular polarization performance**

LNA /Block Downconverter

- **High gain/low noise figure**
- **Continuously variable level control optimizes the signal level to prevent receiver overload - an essential feature for digital operations**
- **High dynamic range**
- **Located in the central junction box or in each antenna**

Digital Ready Versions

- **All 2 GHz systems are digital ready**
- **High stability block downconverter with phase locked DRO for 7 GHz systems**

Field Proven Performance

Introduced in 1972, the Quad™ central receive antenna system is field proven for analog and digital operations. It features four individually selected antennas, each covering a 90-degree quadrant. It is the ideal solution for some installations - such as the corners of a building rooftop. The Quad™ antennas feature quad polarization (CW, CCW, H and V), enabling the operator to choose the optimum sense of polarization of the received signal as well as to use cross polarization to provide isolation from interfering signals. And the Quad™'s horn antenna design offers superior circular polarization characteristics for optimal performance.

The Quad™ also features a high gain, low noise LNA or block downconverter (BDC) assembly with a high dynamic range to prevent signal compression. Each includes a continuously variable level control to optimize the signal level and prevent receiver overload - ensuring the robustness of digital shots from practically underneath the antenna out to the radio horizon and everywhere in between. The LNA/BDC assembly is typically located in the central junction box. Alternatively, an LNA/BDC assembly can be located in each antenna when there are long RF cable runs between the central junction box and each antenna.

Unsurpassed Reliability

One of the hallmarks of an NSI product is the way it is built. Designed to ensure years of reliable operation with minimum maintenance, the Quad™ has a well established reputation for long lasting durability.

9050 Red Branch Road, Columbia, Maryland 21045 Phone:410-964-8400 Fax:410-964-9661 www.nsystems.com

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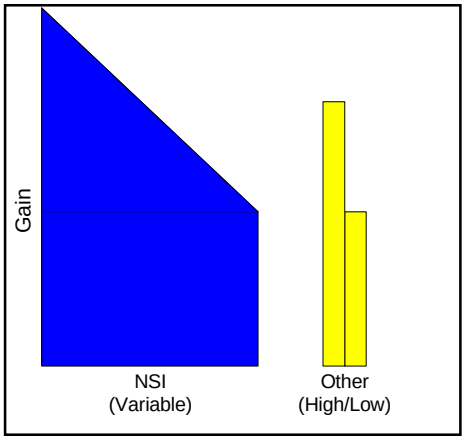

High Gain LNA/BDC with Variable Level Control

The Quad™ incorporates a high gain, low noise LNA or block downconverter (BDC) with a high dynamic range to prevent signal compression. The superior gain of the NSI standard LNA/BDC assemblies is ideal for long RF cable lengths. Each features a unique, continuously variable level control to optimize the signal level and prevent overloading in the presence of strong signals - an essential feature for digital operations. The LNA level control in a two-stage configuration (high/low gain) is too coarse to ensure robust signal quality in daily ENG operations.

Antenna

Frequency	Gain*	Azimuth	Elevation
2 GHz	15 dB	90 degrees	15 degrees
7 GHz	15 dB	90 degrees	15 degrees

* Antenna only; excluding switching options.

LNA/BDC

Gain	33 dB (min.)
Variable Level	0-20 dB gain reduction

Specifications subject to change without notice.

System Control Unit

The system control unit provides complete on-site control of the Quad™ and provides the interface for the MC5 remote control.

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