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Nextivity CEL-FI Quatra Network Unit, 1/3/7/8

MPN: Q34-1/3/7/8NU_EXA

Description

The Cel-Fi Quatra is an enterprise 4G repeater system designed to provide in-building coverage to large facilities and small-medium sized multi-storey buildings.

Quatra is a hybrid repeater design which follows a hub-and-spoke design. The system breaks apart the functionality of an inline amplifier by separating downlink and uplink boost functions between the hub, called the Network Unit (NU), and spokes, called Coverage Units (CU). Specification listed on this page are for the Network Unit only.

The system requires one Network Unit and between one and four Coverage Units which are interconnected by ordinary Ethernet cables. A typical system design would use one CU per floor on a multi-storey building, or one CU per warehouse in an industrial facility. Each CU is powered via PoE from the NU.

Ethernet cables are used to transmit a digital signal between NU and CU, allowing lossless connectivity up to 100 metres and up to 200 metres with a ...

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Quatra must be carefully designed and configured in order to correctly function. As a hybrid DAS unit, mobile network operators require Powertec to conduct extensive RF design, which must be submitted to the operator in order to obtain approval for use.

Q34 (Q1000) has been made End-of-Life by the manufacturer.

Nextivity

Nextivity, Inc. develops and sells in-building cellular coverage technology products and solutions. The Company helps wireless subscribers and increases radio frequency network capacity for mobile network operators. Nextivity operates in the State of California.

Nextivity is best known for its Cel-Fi range of mobile repeater solutions which provide low cost improved in-building coverage solutions.

RF Specification

Simultaneous Bands:	4	Relay Bandwidth:	75 MHz
Downlink Max. Gain:	100 dB	Uplink Max. Gain:	100 dB
Supported Technologies:	4G LTE		

Supported Bands

Frequency Band	Duplex Method	MIMO	Uplink Output Power	Max. Channel Width	Uplink Start Frequency	Uplink Stop Frequency
B1 (2100 MHz)	FDD	1x1 SISO	22 dBm	20 MHz	1920 MHz	1980 MHz
B3 (1800 MHz)	FDD	2x2 MIMO	22 dBm	20 MHz	1710 MHz	1785 MHz
B7 (2600 MHz)	FDD	2x2 MIMO	22 dBm	20 MHz	2500 MHz	2570 MHz
B8 (900 MHz)	FDD	1x1 SISO	20 dBm	15 MHz	880 MHz	915 MHz

RF Connections

RF Connector Function	Quantity	RF Interface	Notes
Donor Input	2	QMA Female	

Network Interfaces

Ethernet Interfaces

Interface	Quantity	Function	Signalling	PoE Output
RJ45 Copper	1	LAN Management Port	100BASE-T	
RJ45 Copper	1	LAN Management Output Port	100BASE-T	
RJ45 Copper	4	Link to Coverage Unit (Proprietary Signalling)		802.3at PoE+

Physical Specification

Ingress Protection:	IP20	Min. Operating Temperature:	0 °C
Mounting:	Wall / Vertical Surface	Max. Operating Temperature:	40 °C
Dimensions:	250 × 188 × 55 mm	Weight:	1.2 kg
Compliance/Certifications:	CE , R-NZ , RCM		

Device Power Specifications

Max. Consumption:	120 W
Power Options:	DC Power Input

Power Interface

Power Connector	Nominal Voltage	Min. Input Voltage	Max. Input Voltage	Voltage Type	Input Current
DC Coaxial, Type A, Female 5.5 x 2.5 mm	54 V	51.3 V	56.7 V	DC	2.22 A

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