

CEL-FI[™] QUATRA 4000

DATA SHEET

NU Model: #Q44-1234CNU
CU Model: #Q41-5ECU

3G / 4G / LTE

In-building Cellular Solution

Cel-Fi QUATRA 4000 is an Active DAS Hybrid that solves the problem of poor cellular coverage in middleprise buildings. Cel-Fi QUATRA 4000 delivers a cellular signal that is up to 1000x stronger, utilizing CAT 5e cabling for RF and Power over Ethernet. Cel-Fi QUATRA 4000 can be installed in just days, and at a price point that meets the middleprise budget. Cel-Fi QUATRA 4000 is carrier grade, carrier approved, and guaranteed network safe.

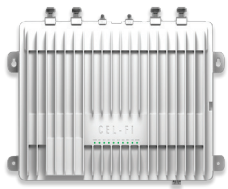
- Scalable All-Digital PoE Cat5e Active DAS Hybrid for Middleprise
- Up to 100 dB (1000x Stronger Signal)
- Four Operator Solution
- 3G / 4G / LTE for Voice and Data
- Independent Donor antenna or Small Cell input per operator
- Supports Cel-Fi WAVE Portal Cloud Management
- Carrier-Approved and Unconditionally Network Safe



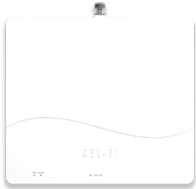
Network Unit

Coverage Unit

CEL-FI QUATRA 4000
Network Unit
Q44-1234CNU



CEL-FI QUATRA 4000
Coverage Unit
Q41-5ECU



CEL-FI QUATRA 4000
Range Extender
Q40-OE



QUATRA 4000			
OPERATORS CONFIGURATIONS	Operators	Operators Supported	AT&T, Sprint, Verizon, T-Mobile
		Bands	2,4,5,12,13,25,26,71*
	OPERATOR 1	Verizon	B13 & B25
	OPERATOR 2	Sprint	B13 & B4
	OPERATOR 3	T-Mobile	B26 & B25
RELAY CONFIGURATIONS (one configuration per operator)			B12 & B2
			B12 & B4
			B71 & B2
			B71 & B4
	OPERATOR 4	AT&T	B12 & B25
TRANSMIT EVM	UL	8.5%	16-QAM with full RB allocation
		8.5%	E-TM3.1
REGULATORY CERTIFICATIONS		Part 15	Yes
		Part 20	Yes
		Part 22	Yes
		Part 24	Yes
		Part 27	Yes

NETWORK UNIT					
RADIO SPECS	Bands Supported		FDD	2,4,5,12,13,25,26,71*	
	OPERATOR 1	BAND 4	Downlink (DL) Frequency (MHz)		2110-2155
			Relay Bandwidth (Max)(MHz)		20
			UL Output Power (at port)(dBm)		23
			DL Min Input Level (dBm RSRP)		-120
			DL Max Input Level (dBm RSSI)		-20
			System Gain (Max)(dB)		100
		BAND 13	Downlink (DL) Frequency (MHz)		746-756
			Uplink (UL) Frequency (MHz)		777-787
			Relay Bandwidth (Max)(MHz)		10
			UL Output Power (at port)(dBm)		23
			DL Min Input Level (dBm RSRP)		-120
			DL Max Input Level (dBm RSSI)		-20
		System Gain (Max)(dB)		95	

ANTENNAS



**LPDA-R
High Gain Directional
Antenna**
A62-V44-200



**Indoor Low Profile
Antenna**
A11-V43-201



**Micro-Panel
Antenna**
A21-V44-500

RADIO SPECS

OPERATOR 1	BAND 25	Downlink (DL) Frequency (MHz)	1930-1995	
		Uplink (UL) Frequency (MHz)	1850-1915	
		Relay Bandwidth (Max)(MHz)	20	
		UL Output Power (at port)(dBm)	24	
		DL Min Input Level (dBm RSRP)	-120	
		DL Max Input Level (dBm RSSI)	-20	
		System Gain (Max)(dB)	100	
	BAND 26	Downlink (DL) Frequency (MHz)	859-894	
		Uplink (UL) Frequency (MHz)	814-849	
		Relay Bandwidth (Max)(MHz)	15	
		UL Output Power (at port)(dBm)	23	
		DL Min Input Level (dBm RSRP)	-120	
		DL Max Input Level (dBm RSSI)	-20	
		System Gain (Max)(dB)	95	
	BAND 25	Downlink (DL) Frequency (MHz)	1930-1995	
		Uplink (UL) Frequency (MHz)	1850-1915	
		Relay Bandwidth (Max)(MHz)	20	
		UL Output Power (at port)(dBm)	23	
		DL Min Input Level (dBm RSRP)	-120	
		DL Max Input Level (dBm RSSI)	-20	
		System Gain (Max)(dB)	100	
	OPERATOR 2	BAND 25	Downlink (DL) Frequency (MHz)	1930-1995
			Uplink (UL) Frequency (MHz)	1850-1915
			Relay Bandwidth (Max)(MHz)	20
UL Output Power (at port)(dBm)			23	
DL Min Input Level (dBm RSRP)			-120	
DL Max Input Level (dBm RSSI)			-20	
System Gain (Max)(dB)			100	
BAND 4		Downlink (DL) Frequency (MHz)	2110-2155	
		Uplink (UL) Frequency (MHz)	1710-1755	
		Relay Bandwidth (Max)(MHz)	20	
		UL Output Power (at port)(dBm)	23	
		DL Min Input Level (dBm RSRP)	-120	
		DL Max Input Level (dBm RSSI)	-20	
		System Gain (Max)(dB)	100	
BAND 26		Downlink (DL) Frequency (MHz)	869-894	
		Uplink (UL) Frequency (MHz)	824-849	
		Relay Bandwidth (Max)(MHz)	15	
		UL Output Power (at port)(dBm)	23	
		DL Min Input Level (dBm RSRP)	-120	
		DL Max Input Level (dBm RSSI)	-20	
		System Gain (Max)(dB)	95	
BAND 12		Downlink (DL) Frequency (MHz)	728-746	
		Uplink (UL) Frequency (MHz)	698-716	
		Relay Bandwidth (Max)(MHz)	10	
	UL Output Power (at port)(dBm)	26		
	DL Min Input Level (dBm RSRP)	-120		
	DL Max Input Level (dBm RSSI)	-20		
	System Gain (Max)(dB)	95		
BAND 71	Downlink (DL) Frequency (MHz)	617-652		
	Uplink (UL) Frequency (MHz)	663-698		
	Relay Bandwidth (Max)(MHz)	20		
	UL Output Power (at port)(dBm)	23		
	DL Min Input Level (dBm RSRP)	-120		
	DL Max Input Level (dBm RSSI)	-20		
	System Gain (Max)(dB)	95		

RADIO SPECS	OPERATOR 4	BAND 25	Downlink (DL) Frequency (MHz)	1930-1995
			Uplink (UL) Frequency (MHz)	1850-1915
			Relay Bandwidth (Max)(MHz)	20
			UL Output Power (at port)(dBm)	23
			DL Min Input Level (dBm RSRP)	-120
			DL Max Input Level (dBm RSSI)	-20
			System Gain (Max)(dB)	100
		BAND 4	Downlink (DL) Frequency (MHz)	2110-2155
			Uplink (UL) Frequency (MHz)	1710-1755
			Relay Bandwidth (Max)(MHz)	20
			UL Output Power (at port)(dBm)	23
			DL Min Input Level (dBm RSRP)	-120
			DL Max Input Level (dBm RSSI)	-20
		BAND 12	Downlink (DL) Frequency (MHz)	728-746
			Uplink (UL) Frequency (MHz)	698-716
Relay Bandwidth (Max)(MHz)	10			
UL Output Power (at port)(dBm)	23			
DL Min Input Level (dBm RSRP)	-120			
DL Max Input Level (dBm RSSI)	-20			
RETURN LOSS (DB)		At all ports	-8	
DONOR ANTENNAS			One RF Port per Operator	
		Operators Supported (Max)	4	
		Impedance (Ohms)	50	
COVERAGE UNIT	Coverage Unit Support	Number Supported (Max)	6	
		Category Cables per CU	2	
		Interface Type	RJ45	
	POE - PSE	Voltage (Vac)	110	
		Power-Typical (W)	415	
		Power-Max (W)	510	
USER INTERFACE	Power / Status	LED	RED / GREEN	
	CU Link	LED	GREEN	
	Donor Antenna	LED	GREEN	
	Cellular Modem	LED	RED / GREEN	
	Ethernet	LED	Yes	
	USB	n/a	Yes	
MECHANICAL	Dimensions	L×W×H (mm)	330×272×85	
		Weight (kg)	6.5	
	RF Port Connector		N-type (Female)	
	Mounting	Wall	Yes	
	Cooling	Convection	Yes	
	Power / Status	AC to NU	Yes	
	Power	On/Off Switch	Yes	
ENVIRONMENTAL	Maximum Surface Temperature (°C)	Measured at 30°C Ambient	44	
STANDARDS				
ENVIRONMENTAL	FCC	Part 15, 22, 24, 27, 20	Yes	
	IC (Industry Canada)		Yes	
	UL		Yes	
	3GPP Repeater Specs		Yes	
	Operating Temperature	Ambient	0-40°C	
ENVIRONMENTAL	Relative Humidity	Non-Condensing	0-95%	
	Ingress Protection (IP)		40	
	Ingress Protection (IP)	40	40	

COVERAGE UNIT			
RADIO SPECS	Frequency	Downlink (DL) Frequency (MHz)	617-2690
		Uplink (UL) Frequency (MHz)	663-2690
	DL Power (dBm)	Per Band	17
NETWORK UNIT INTERFACE		INTERFACE TYPE	RJ45 (x2)
USER INTERFACE	Power / Status	LED	RED / GREEN
	NU Link	LED	GREEN
MECHANICAL	Dimensions	LxWxH (mm)	287x255x57
		Weight (kg)	3.9
	Mounting	Ceiling, Wall	Yes

NOTE: Specifications subject to change.
 *Software upgrade feature.

