

CEL-FI[™] QUATRA 4000

3G / 4G / LTE

In-building Cellular Solution

Cel-Fi QUATRA 4000 is an Active DAS Hybrid that solves the problem of indoor cellular coverage. 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.

Benefits:

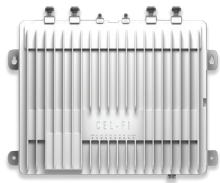
- Scalable All-Digital PoE Cat5e Active DAS Hybrid for Middleprise
- Up to 100 dB (1000x Stronger Signal)
- Four Operator Solution
- 3G / 4G / LTE for Voice and Data
- Independent Donor antenna or Small Cell input per operator
- Supports Cel-Fi WAVE Portal Cloud Management
- Carrier-Approved and Unconditionally Network Safe
- FCC Part 20 and Part 90 variants available



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 4000/4000i				
OPERATOR'S CONFIGURATIONS	OPERATORS	Operators Supported Bands	AT&T, Sprint, Verizon, T-Mobile 2,4,5,12,13,25,26,71*	
	OPERATOR 1	Verizon	B13 & B25	
	OPERATOR 2	Sprint	B13 & B4	
	OPERATOR 3	T-Mobile	B26, B25, & B41	
			B12 & B2	
OPERATOR 4	AT&T	B12 & B4 B12 & B26		
RELAY CONFIGURATIONS (one configuration per operator)			B71 & B2 B71 & B4	
			B12 & B25 B12 & B4 B12 & B26	
TRANSMIT EVM	UL	8.5%	16-QAM with full RB allocation	
REGULATORY CERTIFICATIONS		8.5%	E-TM3.1	
		Part 15	Yes	
		Part 20 (QUATRA 4000)	Yes	
		Part 90 (QUATRA 4000i)	Yes	
		Part 22	Yes	
		Part 24	Yes	
	Part 27	Yes		
NETWORK UNIT				
RADIO SPECS	VERIZON	BAND 4	FDD	2,4,5,12,13,25,26,71*
			Downlink (DL) Frequency (MHz)	2110-2155
		Relay Bandwidth (Max)(MHz)	20	
		UL Output Power (at port)(dBm)	22	
		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)	22
			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)	22
			DL Min Input Level (dBm RSRP)	-120
			DL Max Input Level (dBm RSSI)	-20
		System Gain (Max)(dB)	100	

ANTENNAS



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



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



**Blade
Antenna**
A21-V44-500

RADIO SPECS

SPRINT

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)	22
	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)	20
	DL Min Input Level (dBm RSRP)	-120
	DL Max Input Level (dBm RSSI)	-20
	System Gain (Max)(dB)	95
BAND 41	Downlink (DL) Frequency (MHz)	2496-2690
	Uplink (UL) Frequency (MHz)	2496-2690
	Relay Bandwidth (Max)(MHz)	20
	UL Output Power (at port)(dBm)	22
	DL Min Input Level (dBm RSRP)	-120
	DL Max Input Level (dBm RSSI)	-20
	System Gain (Max)(dB)	100

T-MOBILE

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)	22
	DL Min Input Level (dBm RSRP)	-120
	DL Max Input Level (dBm RSSI)	-20
	System Gain (Max)(dB)	100
BAND 5	Downlink (DL) Frequency (MHz)	869-894
	Uplink (UL) Frequency (MHz)	824-849
	Relay Bandwidth (Max)(MHz)	15
	UL Output Power (at port)(dBm)	20
	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)	22
	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)	22
	DL Min Input Level (dBm RSRP)	-120
	DL Max Input Level (dBm RSSI)	-20
	System Gain (Max)(dB)	100
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)	22
	DL Min Input Level (dBm RSRP)	-120
	DL Max Input Level (dBm RSSI)	-20
	System Gain (Max)(dB)	95

RADIO SPECS	AT&T	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)	22
			DL Min Input Level (dBm RSRP)	-120
			DL Max Input Level (dBm RSSI)	-20
			System Gain (Max)(dB)	100
			BAND 12	Downlink (DL) Frequency (MHz)
		Uplink (UL) Frequency (MHz)		698-716
		Relay Bandwidth (Max)(MHz)		10
		UL Output Power (at port)(dBm)		22
		BAND 25	DL Min Input Level (dBm RSRP)	-120
	DL Max Input Level (dBm RSSI)		-20	
	System Gain (Max)(dB)		100	
	BAND 30		Downlink (DL) Frequency (MHz)	2350-2360
		Uplink (UL) Frequency (MHz)	2305-2315	
Relay Bandwidth (Max)(MHz)		10		
UL Output Power (at port)(dBm)		19		
RETURN LOSS (DB)	At all ports		-8	
	One RF Port per Operator			
DONOR ANTENNAS	Operators Supported (Max)		4	
	Impedance (Ohms)		50	
COVERAGE UNIT CONFIGURATION TO NETWORK 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	LxWxH (mm)	330x272x85	
		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	QUATRA 4000: Part 15, 22, 24,27,20 QUATRA 4000i: Part 15, 22, 24,27,90	Yes
	IC (Industry Canada)		Yes
	UL		Yes
	3GPP Repeater Specs		Yes
	Operating Temperature	Ambient	0-40°C
	Relative Humidity	Non-Condensing	0-95%
	Ingress Protection (IP)		40

COVERAGE UNIT			
RADIO SPECS	Frequency	Downlink (DL) Frequency (MHz) Uplink (UL) Frequency (MHz)	617-2690 663-2690
	DL Power (dBm)	Per Band	16
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.

