CEL-FI™
QUATRA RED | Fiber Range Extender

ERCES Solution

MODEL NUMBER:
F40-0XNU (NU Side)
F40-0XCU (CU Side)

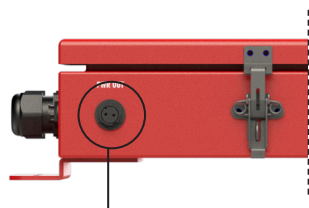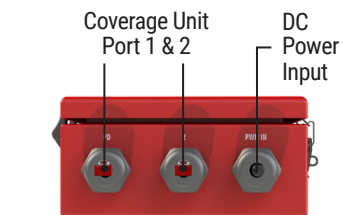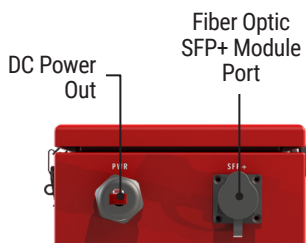Ideal for campuses, multi-building facilities, and high-rises, the Cel-Fi QUATRA RED Fiber Range Extenders (FRE) increase the distance between the Network Unit (NU) and Coverage Unit (CU) up to .87 mile in Cel-Fi QUATRA RED ERCES Public Safety DAS systems. In addition to supporting copper cable to power up CUs remotely, the FREs work in pairs—one NU side and one CU side—with each pair supporting up to two CUs (see system architecture diagram below). The FREs are sold separately.

Cel-Fi QUATRA RED
Fiber Range Extender (FRE)
(SFP+ module is not included)

Key Features

- Adds Fiber Capabilities to Cel-Fi QUATRA RED ERCES Integrated Public Safety DAS Installations
- Extends Distance Between NU and CU up to .87 mile
- Flexibility to Implement QUATRA RED in Large Structures, including Campuses, Multi-Building Facilities, and High-Rises
- Hybrid Cable Configuration Compatible (Fiber Optic + Copper)
- Kit Includes 2 FREs (1 NU Side/1 CU Side)

Coverage Unit Port 1 & 2 | DC Power Input

POWER–FIBER ONLY MODE		
NU Side	Input port	RJ-45, PoE supply from NU
CU Side	Input port (VDC)(Min/Max)	44 / 55
	Output port (VDC)(Min/Max)	

POWER–HYBRID COPPER/FIBER MODE		
NU Side	Input port	44 / 55
	Output port	
CU Side	Input port (VDC)(Min/Max)	
	Output port (VDC)(Min/Max)	

DC Power Out (Daisy Chain)
(Network Unit Side Only)

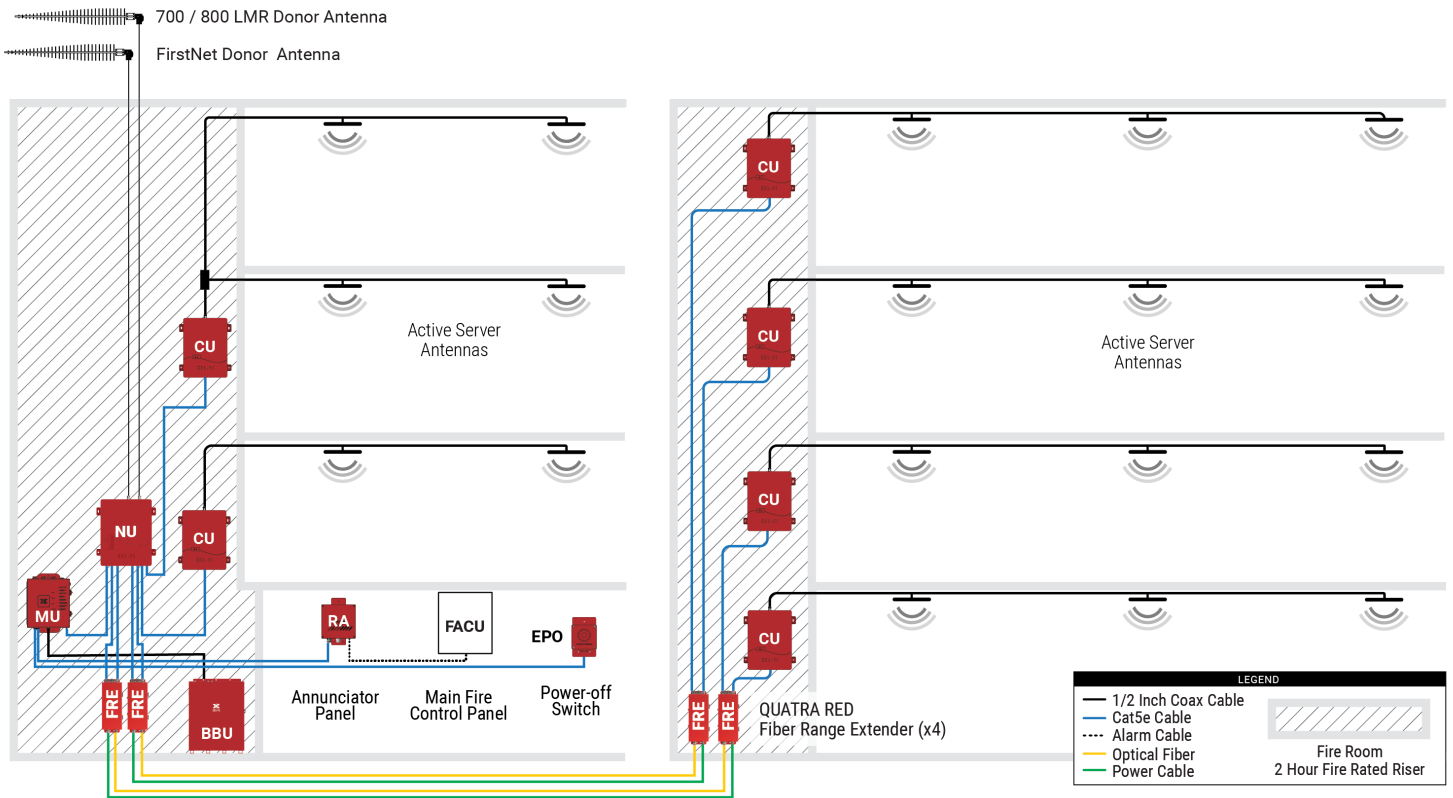| LEDS		
Status	RED ON at power up	=> System is starting
	Flashing GREEN @ 1s period	=> Establishing communication
	GREEN ON	=> Fiber link is established
RJ45 LEDs (per port)	LEDs are off	There is no connection
	YELLOW ON	Cable is connected
	YELLOW and GREEN ON	Data transmission OK

CONNECTIVITY	
RJ45	2x
Optical (SFP+ module)	10 Gb/s minimum
	WIRELESS CPRI COMPLIANT (Recommended)
	SMF or MMF

ENVIRONMENTAL	
Ambient operating temperature (°C)	0 to 50
Relative humidity. Non-condensing	0 to 95
Product Ingress Protection (IP) ratings	NEMA 4

REGULATORY	
FCC	Part 15B, (Class A)
UL	2524

DC Power Out | Fiber Optic SFP+ Module Port

(SFP+ module is not included)

MECHANICAL DIMENSIONS

4 in
7.5 in
20 in

700 / 800 LMR Donor Antenna

FirstNet Donor Antenna

CU

Active Server
Antennas

CU

NU

CU

MU

RA

FACU

EPO

FRE FRE

BBU

Annunciator
Panel

Main Fire
Control Panel

Power-off
Switch

CU

Active Server
Antennas

CU

CU

CU

FRE FRE

QUATRA RED
Fiber Range Extender (x4)

LEGEND

—— 1/2 Inch Coax Cable	
—— Cat5e Cable	/////
---- Alarm Cable	
—— Optical Fiber	Fire Room
—— Power Cable	2 Hour Fire Rated Riser