Fiber-Span
RF ON FIBER® EXPERTS FOR 15 YEARS

FS3200 Series Remote Fiber Repeater Unit
Dual-band Cellular/PCS

FS32R-8719C | Remote Repeater Unit (RRU)

- 824-894 MHz & 1850-1995 MHz Frequency Range
- 5 Watt Linear Output Power Per Band
- Fault-Over-Fiber Feature
- Full-band Cellular, Full-band PCS
- Rack-mount or Wall-mount Options

RF on Fiber® technology offers a new and flexible layer to traditional Distributed Antenna System (DAS) design. Fiber optic cable is not only less expensive to purchase and install than its coaxial counterpart, but it is virtually bandwidth unlimited, making it ideal for multi-service solutions and applications where long runs of coax become cost prohibitive.

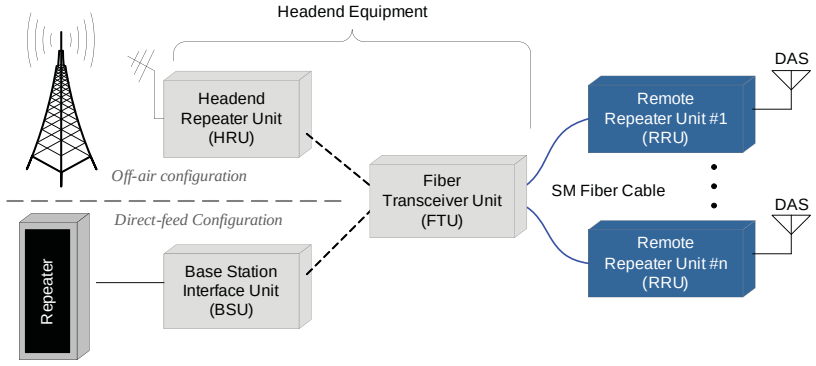
Fiber-Span offers a broad range of RF-on-Fiber product to fit most wireless applications. Fiber-Span's FS3200 Series of product is designed to offer a reliable, low cost, and easy to implement solution for in-building, in-tunnel, and outdoor DAS applications.

The FS32R-8719C Dual-band Remote fiber optic Repeater Unit (RRU) is part of Fiber-Span's FS3200 family of products and is designed to deliver +37 dBm of base-to-portable output power in the Cellular and PCS bands. It features an integrated high dynamic range fiber optic transceiver, a high gain, low distortion Silicon LDMOS Power Amplifier, and high Q bandpass duplexer. The duplexer is configured to pass full-band cellular (25 MHz passbands) and full-band PCS (65 MHz passbands). Consult Fiber-Span Sales for other filter configurations.

As depicted in the diagram below, a Fiber Transceiver Unit (FTU) is required to perform the RF-to-optical conversion at the headend. The FTU can be ordered in 1-port, 2-port, or 4-port configurations for supporting up to 4 RRUs. Multiple FTUs can be used to support any number of RRUs. Refer to data sheet DS31F-01 for determining which FTU model number best fits your application. Consult Fiber-Span Sales for assistance in determining whether an HRU or BSU may be required for your application.

All of Fiber-Span's FS3200 series RRUs come standard with a Fault-over-Fiber feature that sends a summary fault condition over the uplink fiber path to the headend Fiber Transceiver Unit (FTU). The summary fault condition appears as a dry contact relay at both the back panel of the FTU, and as a local alarm to the RRU.

Applications:
- Shopping Malls
- Warehouses
- Parking Garages
- Airports
- Justice Centers
- Manufacturing Facilities
- Stadiums
- Convention Centers
- Universities



Fiber-Span is a world-leading manufacturer of RF ON FIBER® Communication Network Products for in-building, in-tunnel and outdoor coverage extension systems serving the Commercial Wireless, Public Safety, Government and Military markets.

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FS32R-8719C | Specifications

Parameter	Downlink	Uplink
Operational Range	869-894 MHz & 1930-1995 MHz	824-849 MHz & 1850-1915 MHz
Passbands	25 MHz@ Cellular, 65 MHz @ PCS	
System Gain @ 4 dBo optical path loss	+40 dB	+32 dB
Composite Output Power	+37 dBm per band	+10 dBm
Gain Reduction (manual)	20 dB continuous	n/a
Max. RF Input Level	n/a	+10 dBm no damage
Uplink Noise Figure	<12.1 dB at 4dBo	
Wideband Noise (dBm/Hz)	-92 dBm/Hz @ max gain	
Max. RF Output Power (per 25 KHz FM Channel)	1 Carrier: +37 dBm, 2 Carriers: +34 dBm, 4 Carriers: +31 dBm, 8 Carriers: +28 dBm	
Spurious Emission	<-13 dBm	

Environmental

Operational Temperature Range	-5 to +50 deg C
Humidity	10 to 95%

Fiber Optic Parameters

Wavelength	1310 nm
Laser type	DFB
Max. Optical Budget	Downlink: 4 -10 dBo[1] Uplink: 10 dBo
Fiber Optic Cable Type	Single-Mode 9/125um
Connector Type	SC/APC
Back Reflections	<-50 dB typ.

[1] Downlink fiber optic link budget is dependent on headend FTU configuration.

Electrical

AC Power	50/60 Hz, 115-230 VAC
Power Consumption	<150 Watts
Local Alarms Dry Contact Relay:	1. Laser Over Current 2. Opt. Rx 3. PA 4. Temp 5. Auxillary
Remote Alarms - Summary Fault sent to headend FTU over fiber	

Mechanical Specifications

Dimensions (W x H x D) inches	Wall-mount: 16 x 18 x 9 Rack-mount: 19 x 7 x 21
Weight (approx.)	Wall-mount: < 80 lbs. Rack-mount: < 60 lbs.
RF Connector Type	N-Female

Ordering Information

Identification	Part Number
FS32R-8719C	FS32R-8719CFBYYX
	Where: YY = Enclosure Type (see table)
	X = W or N (see WDM table)

Enclosure Type

RM=Rack Mount version
WM=Wall Mount (indoor rating)
4X=Wall Mount NEMA 4X enclosure
40=Wall Mount NEMA 4 enclosure
65= Wall Mount IP65 enclosure
66=Wall Mount IP66 enclosure

WDM - Wavelength Division Multiplexing

W=Tx & Rx signals are multiplexed onto a single fiber.
N=Tx & Rx signals are on separate fiber strands.

LITERATURE ORDER CODE: FS32R-8719C-01-0608v2

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