Radiant QRF5000 Series leverages advanced engineering and intelligent, user-friendly design to rapidly and cost-effectively deploy all-digital lineups to low-cost digital set-tops. Affordable for HFC, Fiber Deep N+0, RFoG, Hybrid PON and PON deployments of all sizes, the unit is ideal for MDUs, hotels, hospitals, gated communities, casinos, and retirement centers.

QRF-5000 Encoder - a plug-and-play device that encodes local baseband video and audio channels and multiplexes them with a built-in QAM modulator and a broadcast agile RF up converter for distribution into existing cable network.

With digital services increasingly being used to deliver video to the home, operators are focused on enhancing the subscriber's viewing experience by increasing the variety of services they offer and improving quality, while still maintaining a cost-efficient and easy-to-manage infrastructure.

Product Highlights

- QBA and MPEG2 Compliant
- Flexible Channel Selection Capability
- Broadcast Quality MPEG2 Encoder
- Dolby Digital 2.0 Audio
- ITU Analog Laser Output
- 40km SBS suppression
- DFC GigE Output
- QAM and ASI Outputs
- Low Power Consumption
- User Friendly Graphical Interface
- Single or Multiple node insertion
- Continuous quality and feature upgrades via firmware releases without service plans
- 24/7 Support and 24 Hour RMA Process

QRF5000FXGA

One unit for any network.
Featuring QAM, Analog ITU laser, DFC GigE Laser output, IP and ASI outputs.
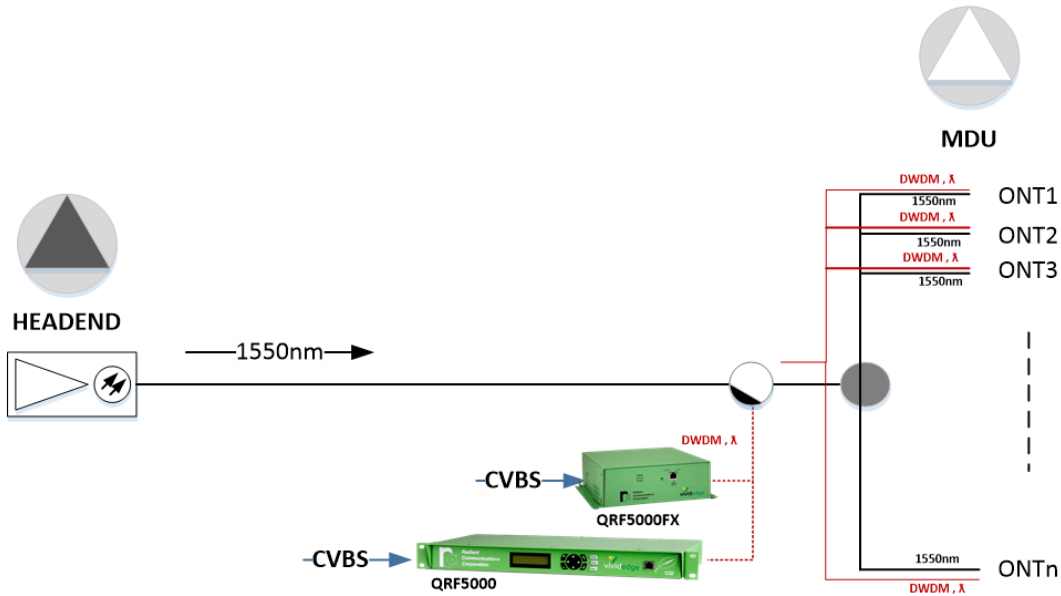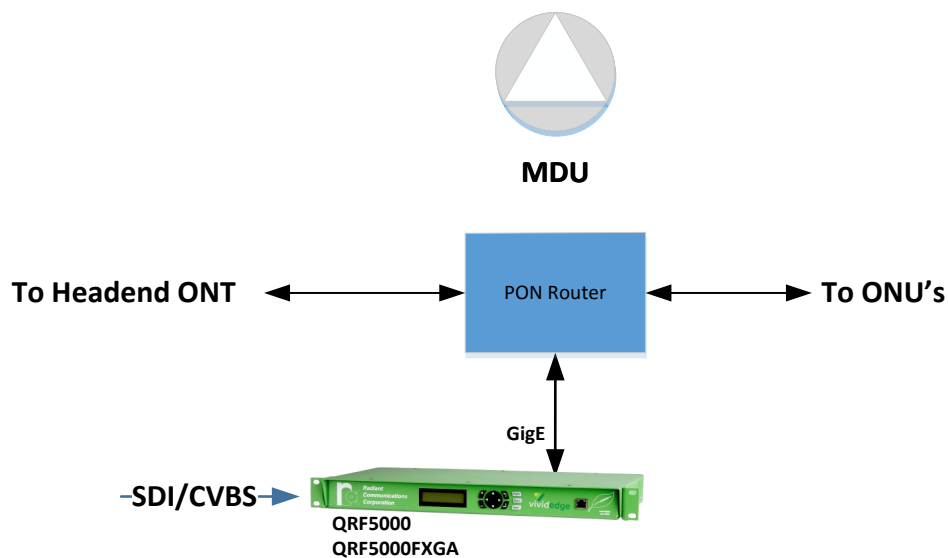
Applications

Single Node QAM over fiber insertion for Fiber Deep, RFoG and FTTx

The QRF5000 for optical video insertion in N+0, PON with overlay and RFoG networks is a cost effective solution to insert locally generated MDU content as MPEG-2 SD QAM RFoG streams.

For Remote PHY, EPON/GPON the insertion can be done over IP via GigE DFC port on the unit.

Specifications

Encoder:

From 1.5 to 15M MPEG2 Encoder

Resolutions: 720, 704, 528, 480 and 352x480

Video Input: CVBS or S-Video

Audio Input: 10k Unbalanced RCA, 600 Balanced

Audio Codec: Dolby Digital AC3 2.0 , 128 - 384kbps

Management Interface:

Out of Band Management via GUI and HTTP

Environmental:

Power 40W@90 to 240VAC (DC Power Brick), fully loaded

Operating Temperature 0° to 50° C

Storage Temperature -10° to 60° C

Dimensions and Weight:

8.5" W x 6.65" D x 2.75" H, 3lbs

QAM Modulator:

QAM 64 or 256 per ITU-J.83 Annex B

RF Output Accuracy +/- 2 dB +/- 5000 Hz

RF Output Stability +/-1 dB relative to RF Output level RF

Output Return Loss >14 dB 88 - 750 MHz, >13 dB 750 - 870 MHz

Frequency Range - Agile - 54MHz to 1GHz

In-Channel Spurious and Noise >41 dBc Equalized MER

Optical Output:

Wavelength: 1310nm, 1550nm, CWDM 1270-1610nm, DWDM ITU from ch18 to ch.54

Output Power: 7dBm

Frequency Range : 47MHz to 1GHz

OMI 11%

GigE Output:

MPEG-TS MPTS output over standard GigE SFP port

Model	HFC	N+0	RFoG	RFoG/PON	QAM/PON	EPON/GPON	DFC
QRF5000	•	•[I]			•	•	•
QRF5000FX		•	•	•			
QRF5000FXG		•	•	•		•	•
QRF5000FXGA	•	•	•	•	•	•	•

[I] Insertion into the output of a single node via RF QAM, for multi node insertion use analog laser output option unit

ORDERING INFORMATION

QRF5000-Y	1RU, QAM and GigE Output Edge Encoder
QRF5000-MY	Modular, QAM and GigE Output Edge Encoder
QRF5000-YFXZ	1RU, Analog ITU Laser Output Edge Encoder
QRF5000-YMFXZ	Modular, Analog ITU Laser Output Edge Encoder
QRF5000-YFXGZ	1RU, GigE SFP and Analog ITU Laser Output Edge Encoder
QRF5000-YMFXGZ	Modular, GigE SFP and Analog ITU Laser Output Edge Encoder
QRF5000-YFXGAZ	1RU, QAM, ASI, GigE SFP Analog and ITU Laser Output Edge Encoder
QRF5000-YMFXGAZ	Modular, QAM, ASI, GigE SFP and Analog ITU Laser Output Edge Encoder

Note:

Replace (Y) in the part number for number of Channels/Encoders, Up to 2 for QRF5000M Series and up to 4 for QRF5000 Series.

Replace (Z) in the part number with desired wavelength or ITU channel for the analog laser

QRF5000-ENC	MPEG2 Encoder Card, CVBS, S-VIDEO, 10k RCA Audio
VL4125B-ENC	MPEG2 Encoder Card, CVBS, S-VIDEO, 600 Ohm Audio
QRF5000-HDMI	MPEG2 Encoder Card, HDMI

All product and application features and specifications are subject to change at the sole discretion of Radiant Communications Corporation at any time and without notice.

10/2016   4