Radiant QRF5000MFX 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 RFOG or 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 Laser Output
- 40km SBS suppression
- 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

www.rccfiber.com 09/2015
Applications

Single Node QAM over fiber insertion for RFOG and FTTx

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

Multiple Node QAM over fiber insertion for RFOG and FTTx

QRF5000MFXG offer a cost effective insertion of MDU and PEG local content encoded at the edge and transported to the headend. No additional equipment is required at the headend.
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

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

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

Optical Output:
Wavelength: 1310nm, 1550nm, CWDM 1270-1610nm, DWDM ITU from ch18 to ch.54
Output Power: 7mW
Frequency Range: 47MHz to 1GHz
OMI 11%
Return Loss: 16dB

Dimensions and Weight:
8.5" W x 6.65" D x 2.75" H, 3lbs
ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>QRF5000-1MFX (CH)</td>
<td>Modular Single Program PON Encoder, Laser Output</td>
</tr>
<tr>
<td>QRF5000-2MFX (CH)</td>
<td>Modular Dual Program PON Encoder, Laser Output</td>
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Note:
Replace (CH) in the part number with desired wavelength or ITU channel

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<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>QRF5000-ENC</td>
<td>MPEG2 Encoder Card, CVBS, S-VIDEO, 10k RCA Audio</td>
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<tr>
<td>VL4125B-ENC</td>
<td>MPEG2 Encoder Card, CVBS, S-VIDEO, 600 Ohm Audio</td>
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<tr>
<td>QRF5000-HDMI</td>
<td>MPEG2 Encoder Card, HDMI</td>
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