

RADIANT COMMUNICATIONS

QRF 5000

FAQ / TROUBLESHOOTING GUIDE



Overview

- ◆ The QRF 5000 was designed to be easy to connect, but due to the complexity of the product's capabilities, as well as the tremendous amount of flexibility inherent in the QRF feature set, there can be setup issues that prevent proper "out-of-the-box" functionality.



QRF5000 – things to check

- ◆ RF output (QRF5000 models)
- ◆ Encoder Settings (All but QRF5200)
- ◆ Tuner Settings (DQ and QRF5200)



RF output

- ◆ QRF has VERY high output power (meant for head-end applications). It cannot be directly connected to a set-top box without attenuation.
- ◆ Output power is between +40-60dBmV. Set top range is ~-10 to +10dBmV. Need 30dB attenuation min.
- ◆ Output frequency is usually a no brainer, but if injecting into a system, you will need to notch out any existing energy at that frequency
- ◆ QAM mode effects bandwidth!
 - ◆ 64 QAM ~ 28Mbps
 - ◆ 256 QAM ~ 38Mbps



Encoder Settings

- ◆ Main setting here is video bit rate. This is increasingly important in systems using tuner modules.
- ◆ Too low can cause problems (try lowering resolution) too high can cause problems with some set tops.
- ◆ PIDs are not usually a problem, unless they conflict with tuner input



Tuner Settings

- ◆ Input is in set top box range (~0dBmV)
- ◆ Frequency typically a no brainer.
- ◆ QAM mode 64 or 256. Typically RF output is set the same as this.
- ◆ Filters! Typically most line-ups are full. You must add filters to make room for new local channels



Remux Overflow

- ◆ Input bandwidth exceeds output.
- ◆ Check QAM modes both in and out
- ◆ Lower encoding rates
- ◆ Add filters (tuner)



Macroblocking

- ◆ If no remux overflow error is present, but the output still has artifacts, it could be due to one of the following:
 - ◆ RF power is too high / low
 - ◆ PID conflict: PIDS must be unique