

QUESTER

QAM Modulator



Overview

The QUESTER part-1 is a broadcast DVB-C/OpenCable Television QAM modulator, ideal for broadcast any MPEG-2 transport stream to cable networks with agile frequency from 54 to 860 MHz and adjustable level, and the basic form of QUESTER part-1 is QAM modulation and All Channel up conversion is a single integrated IRU unit.

ASI/SPI input is compatible with any existing DVB multiplexers, Encoders, or digital receivers.

The QAM modulation supports constellations of 16, 32, 64, 128, 256 mode making it possible to move up to 54Mbps of SPTS / MPTS streams across the cable network on the selected channel.

All parameters can be set via the front LCD panel display or remote control via RS 232.

It has TS processing capability such as Null-packet Extract & Insertion and PCR Re-stamping for Clock reference correction.



Key Features

- FCC Compliance
- QAM Mode 16, 32, 64, 128, 256 QAM
- Support for ANNEX A/B/C
- Symbol Rate up to 10MSps
- MER > 37dB
- Output Frequency 54~860 MHz
- Bandwidth support for 6/7/8MHz
- Output Level 42 ~ 55 dBmV
- RF Connection 75Ω, F connector / TP-20dB
- Return Loss ≤ -15dB
- Null Packet Insertion
- Null Packet Extract
- PCR Re-stamping
- TS Rate Monitoring (option)
- PID Filtering (option)
- PID Remapping (option)
- PID Monitoring (option)
- ASI input over BNC 75 Ω Connector up to 100Mbps
- SPI input over DIN 25PIN connector up to 100Mbps
- RS232 control port to remote management
- User friendly LCD UI (with 4 line LCD)

Physical & Power

Dimensions

- 1 RU (19 inches Rack Mount)
- Height 1.75 X Width 17.5 X Depth 18.0 inches
- Weight: 3.15 Kg
- All Aluminum case

Power

- Voltage 90-260V
- Power consumption: 60W Max

ASI/SMPTE-310M Input

MPEG-2 Transport Stream Interface

- Comply with EN50083-9
- DVB-ASI over BNC - 75 Ohm
- DVB-SPI over LVDS 25 pin DIN
- Asynchronous Serial Interface (ASI) (according to EN50083-9)

ASI/ SPI Packet Length

- 188 byte / 204 byte (non-channel encoded)

Bitrate

- 1 to 215 Mbit/s (minimum 1Mbit/s payload)
- Up to 100Mbps

Syntax

- SPTS or MPTS (according to ISO/IEC 13818)

ASI Packet Modes

- Burst / Byte

Take
a Look!

Modulation

Standard

- ITU-T J.83 All Mode support (Annex A/B/C)

Modulation Scheme

- QPSK, 4, 16, 32, 64, 128, 256 QAM,

Symbol rate

- Symbol rate up to 10MSps

Environment

Temperature

- Operating : 0 ~ 60°C
- Storage : -40 ~ 70° C
- Humidity : 85% non-condensing
- Vibration and shock: In accordance with MIL-STD-810D

IF Output

IF Modulator Output

- 44, 36.15 MHz
- Digital Tuning resolution : 1Hz
- Channel Bandwidth 1~10MHz
- Connector 75Ω F-type

Control & Monitoring

Front Panel

- 4 line - 16 character LCD display
- 4 cursor keys + 2 function keys

Remote Control

- RS 232 - 9 pin DIN

RF Output

VHF/UHF Output

- Frequency : 54 ~ 860 Mhz
- Level : 55 dBμV
- Attenuation : 1dB step

Phase noise

- Better than -90dBc @ 10KHz

EVM(before equalizer) : <2% RMS(at RF)

MER(measured at RF) : >37dB

RF Spurious Tones

- Better than -55 dBc below output signal

RF Harmonics

- Better than -35 dB below output signal

RF Output connector

- F-type, 75 Ω
- -20dB TP output

Take
a Look!