QUESTER

Overview

The QUESTER part-1 is a broadcaste 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 1RU 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 TS rate monitoring(option), PID Filtering and remapping(optional), Null-packet Extract & Insertion and PCR restampping for Clock reference correction.

Key Features

- 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 Restamping
- 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 menagement
- User friendly LCD UI (with 4 line LCD)

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 orMPTS(according to ISO/IEC 13818)

ASI Packet Modes
- Burst / Byte

Physical & Power

Dimensions
- 1 RU (19" rack)
- 483 X 44 X 380 m
- Weight: 3.15 Kg
- All Aluminum case

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

Environment

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

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

IF Output

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

RF Output

VHF/UHF Output
- Frequency : 54 ~ 860 Mhz 125Khz Step
- Level : 55 dBmV
- 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

Control & Monitoring

Front Panel
- 4 line - 16 character LCD display
- 4 cusor keys + 2 function keys

Remote Control
- RS 232 - 9 pin DIN

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