Digital QAM Upconverter

DQX

❍ Features & Benefits

- Modular Design Allows One to Four Single Upconverter Modules in a Single Rack Space
- Fully Agile Output Frequency Range of 54-864 MHz, Std., HRC, IRC and 12.5 KHz Increment Tuning Supported
- Back-Lit LCD Display Panel with Front Panel Accessible Push Button Controls Provides Access to All Vital Unit Information and Makes Set-Up and Troubleshooting a Breeze
- Off-Site Remote Operation and Control Including Digital Adjustment of the QAM RF Output Level with High Performance Computer Software
- 256 QAM & Standby/Redundant Power Capable

The DQX is a Modular Digital QAM Upconverter intended for data over cable and digital video-on-demand (VOD) applications. The modular design allows from one to four independent single IF upconverter modules (DQX-SXM) to be housed in one 1.75" rack space. The unit uses a common power supply and control module (DQX-PSCM) to manage all four of the upconverters. An easy to read back-lit LCD is used to display all of the module information. The unit features an advanced menu system based on a flash upgradeable microcontroller. This facilitates programming information to be easily entered with front panel accessible push button navigation switches.

An advanced yet simple computer software package is available to allow local and off-site remote operation and control of the unit including digital level adjustments. Plus, support for redundant standby power is built in as well.

❍ Specifications

IF Input

IF Bandwidth: 6 MHz

IF Frequency: 44 MHz (Center Frequency)

Input Impedance: 75 Ω

IF Return Loss: 20 dB min.

Input Level: +35 dBmV ±1 dB

QAM Output

Output Frequency Range: Agile 54-864 MHz (CATV 2-135)

QAM Bandwidth: 6 MHz

Frequency Step: 12.5 kHz

Output Level: +50 dBmV *

Display Error: ±2 dB max.

Level Adjustment Range: 15 dB

Output Modes: Standard, HRC, IRC & Frequency Tuning in 12.5 kHz Increments

RF Output Impedance: 75 Ω

RF Return Loss: 10 dB min.

Spurious: -60 dBc

Broadband Noise: -75 dBc min. (4 MHz BW @ +50 dBmV Output)

Phase Noise:
- @ 1 kHz: -57 dBc min.
- @ 10 kHz: -95 dBc min.
- @ 20 kHz: -104 dBc min.

Frequency Stability: ± 5 kHz

Passband Flatness: ± 3 dB (in a 6 MHz BW)

Controls and Indicators

Computer Control:
- 2 RJ11 Rear Panel, RS232 Connectors

Backlit Liquid Crystal Display (LCD)

5 Push Button Navigation Controls

Mechanical

Dimensions: 1.75 x 19.0 x 18.5 Inches

Mounting: Standard EIA Unit Height 1.75" x 19" Wide Rack Mount

Unit Weight: 9.5 lbs (4 Channels)

Shipping Weight: 10.5 lbs

Power

Requirement: 100 to 265 VAC

Frequency: 50 to 60 Hz

Power Consumption:
- 2632-1: 12 Watts
- 2632-2: 18 Watts
- 2632-3: 24 Watts
- 2632-4: 31 Watts

Environmental

Operating Temperature: 0 to 50 °C

Storage Temperature: -20 to 70 °C

Humidity: 0 to 90 % RH

❍ Ordering Information

Complete Units

Model	Stock No.	Description
DQX-1	2632 1	DQX - Digital QAM Upconverter - Single Channel
DQX-2	2632 2	DQX - Digital QAM Upconverter - Two Channel
DQX-3	2632 3	DQX - Digital QAM Upconverter - Three Channel
DQX-4	2632 4	DQX - Digital QAM Upconverter - Four Channel

Ala Carte Components

Model	Stock No.	Description
DQX-SXM	2621	DQX - Digital QAM Upconverter - Single Upconverter Module
DQX-PSCM	2622	DQX - Digital QAM Upconverter-Power Supply & Control Module
DQX-4XCH	2623	DQX - Digital QAM Upconverter - Four Upconverter Chassis