

ALL DIGITAL CATV NETWORK SOLUTION

Challenger™ DEM-2800

MPEG-2 Encoder

The DEM-2800 encodes 28 analog programs into MPEG-2 Standard Definition Video, and multiplexes them to 4 separate 4QAM carriers as required in a CATV System.



The Challenger DEM-2800 is designed and built in the United States, and is the next generation digital headend component joining the TVS Challenger Platform of modular components. This is a high density MPEG-2 standard definition encoder—that encodes 28 streams of analog audio and video. The DEM-2800 is compliant with DVB open standards, facilitating flexible design integration and lower cost infrastructure equipment growth.

The MPEG-2 encoders can be multiplexed and mapped to as many as four different transport streams.

The four transport streams have embedded DVB Scramblers with includes a simulcrypt interface for connection to a DVB standards-based Conditional Access Systems (CAS). The unit features an additional ASI input for insertion of entitlement messages (EMM), Electronic Program Guide (EPG) data, SI table information, and private data and set-top box update files.

The Challenger DEM-2800 built-in Qaud modulator provides support for all CATV standards including 4, 16, 32, 64, 128, 256,

and 1024 QAM modulation formatted to Annex A, B, or, C. The DEM-2800 multiplexer includes functions for program insertion, re-mapping of PIDS, and creation of DVB and ATSC tables.

The space-saving 5 RU chassis is eco-friendly with power conservative circuitry and a reliable, embedded Linux operating system that boots from solid state memory. This is superior to units that require multiple chassis that run on a PC Platform.

A full suite of Internet protocols are supported over two Ethernet ports. One port is dedicated for monitor and control functions. Using simple commands, this port allows for user management with devices that handle Telnet and FTP. A simple, browser-based GUI is available when integrated as part of the Challenger headend platform.

As with all Challenger Platform components, system software can be upgraded in the field to add new features and general enhancements, meeting both government or general market needs.

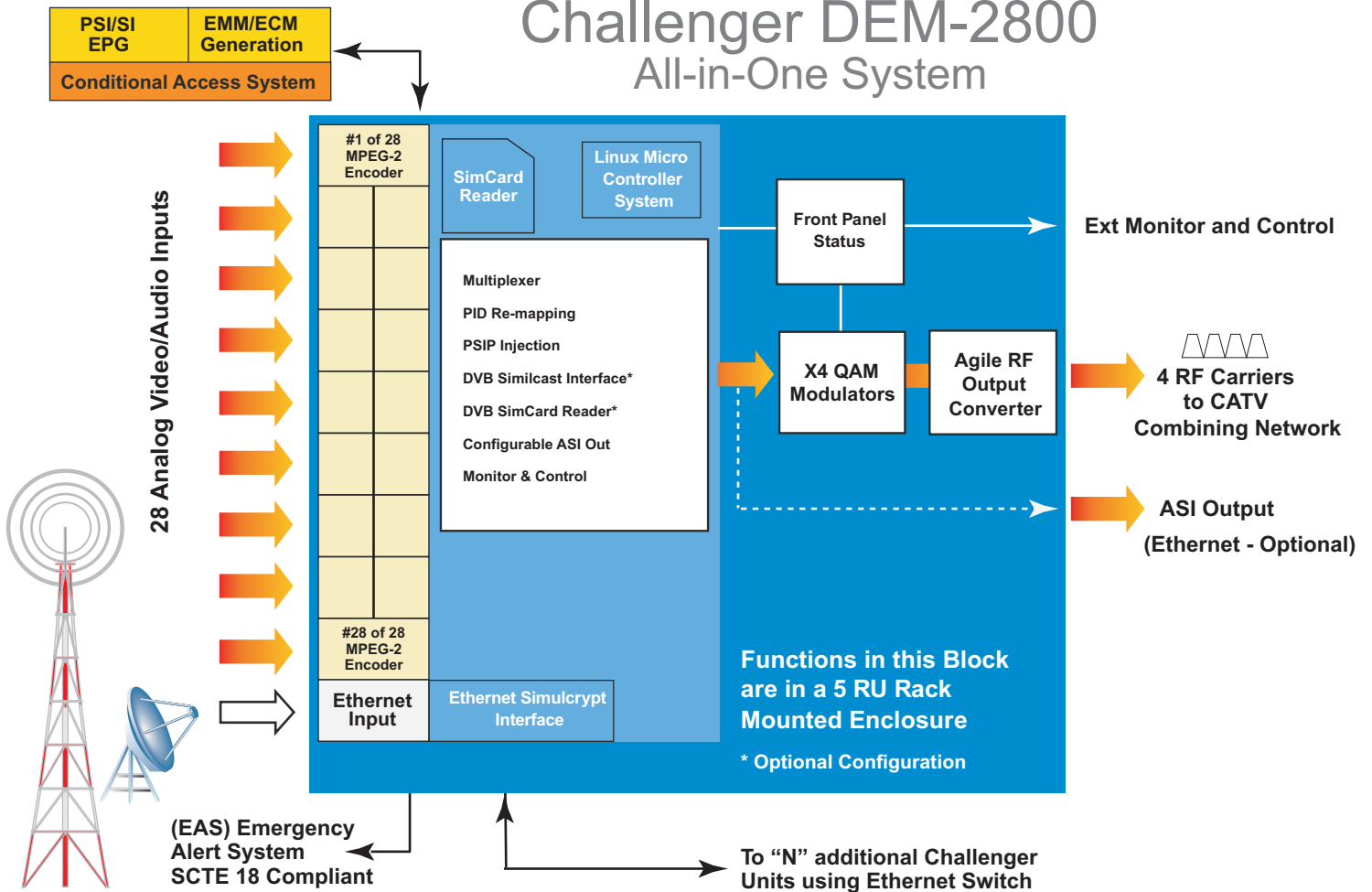
Details specifications are available upon request.

Features

- ☑ 28 MPEG-2 Encoders with stereo/audio individual video processors to enhance video quality
- ☑ Special noise reduction processors Simulcast DVB open standards
- ☑ Contains 4 built in multiplexer scramblers
- ☑ Outputs QAM in 16/32/64/128/256 QAM modulation Annex A, B or C
- ☑ Contains DVB Simulcrypt standards CAS System and monitoring on the front panel LED array
- ☑ High (MER) ensures a low bit error rate and more margin in the CATV system
- ☑ Switching power supply 90VAC-260VAC, 50Hz/60Hz with overload protection
- ☑ RF modulation output with ALC (Automatic Level Control)
- ☑ Agile 50 – 860 MHz output frequency range.

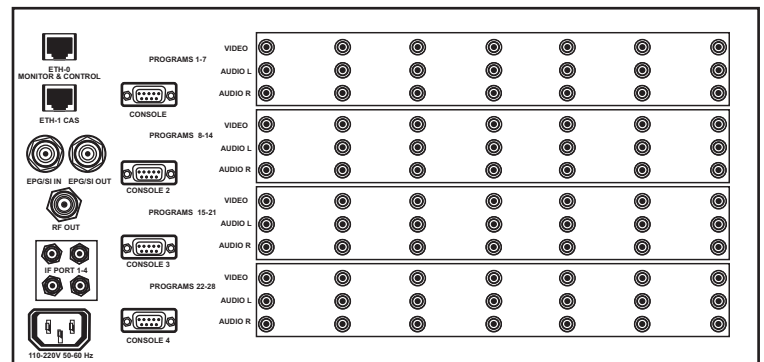
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Challenger DEM-2800 All-in-One System



Highlighted Features

- ✓ Twenty Eight, MPEG-2 Encoders
- ✓ Standard Definition Audio/Video Program Encoder
- ✓ Enable/Disable Quad Modulator Carriers
- ✓ On/Off Mute for RF Out
- ✓ Four x 64/256 QAM Modulators
- ✓ Output level adjustable between 29 and 50 dBmV per carrier
- ✓ PID Selection Table for Mapping & Remapping
- ✓ Emergency Alert System, SCTE 18 Compliant
- ✓ DVB Standard Simulcrypt Interface
- ✓ DVB SimCard Reader for Open Standards CAS



DEM-2800 MPEG-2 Encoder - 28 Analog Video/Audio Inputs