

The Terrace TC600E™ multidwelling unit (MDU) gateway is a multichannel digital to analog RF converter that produces a 36 NTSC analog channel broadcast lineup. The TC600E supports decoding and HD downscaling of MPEG-4 AVC / H.264 and MPEG-2 content from QAM and/or IP sources. Decryption of QAM content is supported using six multistream CableCARDS™. The Terrace TC600E is a flexible, compact, and cost-effective way to bring a digital lineup back into the analog realm for a commercial or MDU bulk account.



Product Features

- Highly integrated – Combines QAM demodulation, IP input, decryption, NTSC modulation, and RF up conversion
- Supports MPEG-2 and MPEG-4 AVC / H.264 video decoding
- Demodulate up to 36 QAM channels
- Receive up to 36 IP streams in the clear or decrypt with BISS-1
- Output up to 36 programs to NTSC and IP outputs
- Convert up to 36 MPEG-2 HD/SD, 36 MPEG-4 AVC / H.264 SD, or 24 MPEG-4 AVC / H.264 HD programs to analog channels
- Supports up to six multistream CableCARDS to decrypt up to 36 QAM streams
- SCTE-18 force tune EAS support
- SCTE-20,21 closed-captioning / VBI support
- Supports OOB-SI (VCN or Source ID) and QAM static mappings
- Integrated DOCSIS® 3.0 cable modem with DSG support
- Supports IPv4 and IPv6 on Ethernet management port
- Supports unencrypted unicast and multicast IP input
- Scalable – Generate up to 90 contiguous channels with three co-located units
- Compatible with HITS QT+
- Compact 1RU design saves space and power
- Compatible with Terrace View™ for global monitoring

Specifications

RF Input Port

Connector	F-connector, female
Input Impedance	75Ω
Return Loss	15 dB (5-42 MHz and 54 - 1002 MHz)
Modulation	64, 256 QAM (annex B)
Frequency	54 – 1002 MHz (band edges)
Channels	36
Number of QAM Tuners	36 discrete
Input Level	-12 to 15 dBmV

Conditional Access System

Type	MediaCipher®, PowerKEY™
Format	CableCARD

Video

Format	MPEG-2, MP@ML MPEG-2, HP@HL H.264, high-profile, level 4.0
Bitrate	Up to 17 Mbps

Audio

Audio Formats	MPEG1 layer 2(MUSICAM) Dolby® Digital (AC3) Advanced Audio Coding
Bitrate	Up to 512 kbps
Sample Rates	32 kHz, 44.1 kHz, 48 kHz
Downmix	Multichannel downmix to stereo or mono

RF Output

Connector	F-connector, female
Impedance	75Ω
Return Loss	13 dB (54 to 600 MHz)
Video	NTSC
Audio	Licensed BTSC/SAP
Frequency	54 to 600 MHz (EIA channels 2 to 86, 95 to 99)*
Channels	36 channels within a 48 channel (294 MHz frequency block)
Output Level	26 dBmV ± 2.5 dB
Carrier-to-Noise Ratio	>49 dB/4 MHz
Composite Triple Beat	<- 52 dBc
Composite Second Order	<- 55 dBc
Cross Modulation	<- 52 dBc
Inband Spurious (-0.75 to +4.2 MHz relative to video carrier)	<- 51 dBc

Management Ports

Ethernet	RJ45, 10/100BASE-T Ethernet
Embedded Cable Modem	DOCSIS 3.0, 8 DS x 4 US channels Optional DSG

Craft Interface Port

Connector	USB type B, receptacle
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Ethernet Media Port

Connector	RJ45, 10/100/1000 Ethernet
Format	MPEG-2 TS 188 byte TS packets Unicast, multicast (IGMPv2, IGMPv3 with single-source IP address)
Max Line Rate	940 Mbps
Max Program Bitrate	20 Mbps
Encryption	Clear only

Closed Captioning / VBI

Input Format	ANSI/SCTE-20 2004 ANSI/SCTE-21 2001
Output Format	CEA-608-E-R-2014

Emergency Alert System (EAS)

EAS Compliance	ANSI-SCTE-18 2007 force tune
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Control & Management

Supported Protocols	HTTPS, SSH, DHCP, TFTP, TACACS+, SNMP IPv4/IPv6 (Ethernet management port) IPv4 (Ethernet media port)
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Chassis / Power / Environmental

Dimensions (H x W x D)	4.5 cm x 48.3 cm x 55.9 cm (1.7 in x 19 in x 22 in)
Weight	5.8 kg (12.75 lbs.)
Input Voltage	100 to 240 VAC, 47 to 63 Hz
Power Consumption	< 175 W
Temperature (operational)	0 to 50° C (32 to 122° F)
Humidity (operational)	5 to 95% noncondensing
Temperature (storage)	-40 to 70° C (-40 to 158° F)
Humidity (storage)	5 to 95% noncondensing
ROHS & WEEE Compliant	Yes

Regulatory Standards Compliance

Safety	CAN/CSA-C22.2 No. 60850 1-07, 2 nd Ed. ANSI/UL Std. No. 60950-1-2011, 2 nd Ed.
EMC Emissions	FCC Part 15 Class B (ANSI C63.4: 2009) ICES-003 Issue 5: 2012