

**ORDERING INFORMATION**

Part #	Description
TMG7800-CTRL	Control Server
TMG7800-TE-8	8 x T1/E1
TMG7800-TE-16	16 x T1/E1
TMG7800-TE-32	32 x T1/E1
TMG7800-TE-48	48 x T1/E1
TMG7800-TE-64	64 x T1/E1
TMG7800-DS3-1	1 x DS3
TMG7800-DS3-2	2 x DS3
TMG7800-DS3-3	3 x DS3
TMG7800-STM1	1 x OC3/STM1
TMG7800-TMS	TB MediaSwitch

Each configuration is available with redundant AC or DC power.

The TelcoBridges **Tmedia™ TMG7800**; high availability says it all. This **multi-unit VoIP gateway** solution is **scalable** and is **100% redundant** ensuring an infallible, **carrier-grade** network.

*Characteristics of the **TMG7800**:*

- ✓ 4 to 39U VoIP gateway
- ✓ 256 to 32,768 VoIP channels
- ✓ 8 to 1024 T1/E1 or 1 to 48 DS3 or 1 to 16 OC3/STM1
- ✓ Redundant AC or DC power supplies

For more information on the Tmedia TMG7800 visit [www.telcobridges.com](http://www.telcobridges.com).



**Tmedia TMG7800** can consist of 1 to 2 **TMG7800-CTRL** (depending on the need for redundancy), which control up to 16 **TMG7800** units.

Tmedia **TMG7800-CTRL**, front view



Tmedia **TMG7800** unit, front view



## **Capacity and voice processing**

256 to 32,768 VoIP channels (hardware & software upgradeable)

### *PSTN interfaces*

8 to 1024 T1/E1 (hardware and software upgradeable) or  
1 to 48 DS3 (hardware and software upgradeable) or  
1 to 16 OC3/STM1 (with Automatic Protection Switching – APS)  
Dual RJ48C for BITS or T1/E1 for signalling on each DS3 & OC3/STM1 unit

### *VoIP interfaces*

Multiple 100/1000Base-T  
RJ45 connectors on rear of unit

### *Vocoding*

Universal codecs: G.711, G.723.1, G.726, G.729ab, T.38  
Other codecs: G.722.2 (AMR-WB), G.728, G.729eg, iLBC, clear mode (RFC 4040)

### *Fax/Modem/Data*

T.38 fax relay (V.17 and V.34)  
Automatic G.711 fallback  
Modem and data pass-through

### *DTMF relay*

RFC 2833, SIP INFO Method, In-band

### *Echo cancellation*

G.168 echo cancellation  
128 ms echo tail on all channels simultaneously

### *Voice processing*

Dynamic and programmable jitter buffer (20 to 200 ms)  
Voice activity detection (VAD)  
Comfort noise generation (CNG)

### *Management interfaces*

Multiple 100/1000 Base-T for OAMP

## **Signalling**

Simultaneous signalling support:

### *SIP*

Supported RFCs: 2327, 2976, 3261, 3262, 3263, 3264, 3311\*, 3323\*, 3325\*,  
3398, 3515\*, 3578\*, 3764, 3891, 4028 (\*: partial compliance)

### *SIGTRAN*

M2PA, M2UA, M3UA, IUA  
SS7 termination and/or relay supported

### *SS7*

Up to 64 x MTP2 links (56, 64, n x 56/64 kbps, HSL)  
Multiple redundant MTP2 links  
Up to 64 MTP3 originating point codes and linksets  
ISUP variants: ITU 92, ITU 97, ANSI 88, ANSI 92, ANSI 95, Telcordia 97,  
ETSIv2, ETSIv3, China, Singapore, UK Brazil

### *ISDN PRI*

Q.931 ISDN PRI: NI-2, 4ESS, 5ESS, DMS-100, DMS-250, Euro ISDN ETSI  
NET5 (France, Germany, UK, China, Hong Kong, Korea), NTT (Japan), Australia

### *CAS*

MFC R2 (standard ITU, Brazil)  
Customizable protocol script files

## **TMG-CONTROL**

### *Standalone call control*

Any to any call routing (TDM-VoIP, TDM-TDM, VoIP-VoIP with transcoding)  
Call routing based on: trunk group, calling/called numbers, nature of  
address, ASR, time of day, load-based, cost-based, TO:, FROM: Request  
URI, redirect numbers, and other parameters  
NPA-NXX routing (100k+ table entries, Excel or CVS file upload)  
Route retries  
Call transfer (REFER, AT&T TR 50075)

### *H.248 (MEGACO) call control*

ITU-T H.248 versions 1 and 2  
UDP, SCTP, IPSec transport  
DTMF and fax detection  
DTMF, announcements and call progress tone generation  
Call quality and inactivity alerts

### *Session management and billing*

SIP peer availability polling  
RTP inactivity monitoring  
CDR generation (RADIUS and text file)

## **OAMP+T**

### *Operation & Administration*

Web-based system status and operations  
SNMP v2 GET, TRAPs and alarms  
Dynamic configuration changes

### *Maintenance*

Web-based interface for maintenance  
Automated system upgrade  
System backup, restore and copy

### *Provisioning*

Web-based interface for configuration  
Dynamic activation

### *Troubleshooting*

Per-call tracing (history and/or live)  
Signalling capture tools  
SSH command-line interface

## **Electrical characteristics**

### *Power input*

90 to 260 VAC, 47 to 63 Hz, -40 to -60 VDC  
Redundant power supply with dual power inputs

### **Physical characteristics** (*Dimensions & Weight*)

39U rack composed of up to 16 2U VoIP gateway units  
Each 2U unit is 3.5" (88.9mm) H x 17.4" (442mm) W x 16" (406mm) D  
20lbs (9.1kg)

### **Regulatory compliance** (UL/CSA 60950, CSA C22.2)

EMC : FCC Part 15:2009, Subpart B, CE Mark (EN55022:2006, Class A,  
EM60950, EN61000, ETS 300 386)

### *Environmental*

Operating temperature: 0 to +55 °C, 95% re. hum. non-condensing  
Storage temperature: -10 to +75 °C, 95% rel. hum. non-condensing  
NEBS Level 3 compliant  
RoHS compliant