PRODUCT DESCRIPTION

The TelcoBridges **Tmedia TMG7800** is our high-level VoIP gateway. This series of VoIP gateways is defined by the highest scalability in the entire Tmedia family. Offering carriers from 16 to 1024 T1/E1s, or 1 to 48 DS3 or 1 to 16 OC3/STM1, the TMG7800 offers the redundancy required for carrier-grade networks.

A Tmedia TMG7800 system consists of 1 or 2 TMG7800-CTRL (depending on the clients need for redundancy), which then control up to 16 TMG7800 telecom units.

Characteristics of the TMG7800:
- ✓ 4U to 39U VoIP gateway
- ✓ 512 to 32,768 VoIP channels
- ✓ 16 to 1024 T1/E1s 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**.

Ordering information

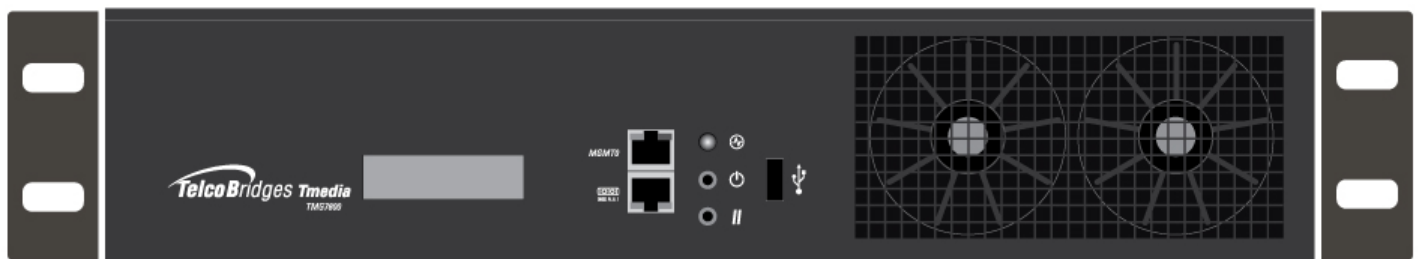| Part #	Description
TMG7800-CTRL	Media controller
TMG7800-TMS	Media switch
TMG7800-TE-16	16 x T1/E1
TMG7800-TE-32	32 x T1/E1
TMG7800-TE-48	48 x T1/E1
TMG7800-TE-64	64 x T1/E1
TMG7800-DS3-1	1 x DS3
TMG7800-DS3-2	2 x DS3
TMG7800-DS3-3	3 x DS3
TMG7800-STM1	1 x STM1

Each configuration is available in redundant AC or DC power.

TelcoBridges Inc.
91 de la Barre, suite 01
Boucherville, QC
J4B 2X6, CANADA

Sales +1.450.655.8993
TB Support +1.866.438.4703

www.telcobridges.com

ILLUSTRATIONS

Tmedia TMG7800 telecom unit, 2U VoIP / media gateway **front view**

Tmedia TMG7800-CTRL gateway controller front view

Capacity and voice processing
512 to 32,768 VoIP channels (hardware and software upgrade)

PSTN interfaces
16 to 1024 T1/E1 (hardware and software upgradable) or
1 to 48 DS3 (hardware and software upgradable) 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
Dual 100/1000Base-T per unit
RJ45 connectors on rear of unit

Vocoding
Universal codecs: G.711, G.723.1, G.726, G.729ab, T.38 V.17, clear
mode (RFC 4040)
Other codecs: G.722.2 (AMR-WB), G.728, G.729eg, iLBC, AMR,
EVRC, GSM-FR/EFR

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
1 DB-9 serial port with RS-232C adapter
Dual 100/1000Base-T for OAMP
Supports virtual IP

Signalling (Simultaneous signalling support)
SIP
Supported RFCs: 2327, 2976*, 3261, 3262, 3263, 3264*, 3311*,
3323*, 3325*, 3398, 3515, 3578*, 3764, 3891, 4028, 3581, 3665*,
3666 (*: 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, Q.767,
Telcordia 97, ETSIv2, ETSIv3, China, Singapore, UK

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

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, calling/called digit manipulation, customizable call cause
code mapping, 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, call progress tone generation, COT generation
Call quality and inactivity alerts
H.248 control port redundancy (supports virtual IP)

Session management and billing
SIP peer availability polling
RTP inactivity monitoring, RTCP
CDR generation (RADIUS and text file)

OAMP+T
Operation & Administration
Web-based system status and operations
SNMP V2, V3 GET, TRAPs and alarms

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

Provisioning
Web-based interface for configuration
Dynamic activation
Dynamic configuration changes

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 option with dual power inputs

Physical characteristics (*Dimensions & Weight*)
Each 2U 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
Designed to meet NEBS Level 3, RoHS compliant

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