Tmedia™ TMG3200-STM1 1+1 Solution

VoIP / media gateway data sheet

PRODUCT DESCRIPTION

The TelcoBridges Tmedia 1+1 solutions answer service providers' needs for high availability and redundancy. Our Tmedia 1+1 solutions consist of three components:

- A standard Tmedia Unit
- A Tmedia +1 Unit
- And a Tmedia 1+1 patch panel

How the solution works...

When properly installed and configured, the standard Tmedia unit acts as the primary (active) VoIP gateway and the Tmedia +1 unit acts as the secondary (standby). The two devices communicate with each other via the VoIP ports and in the event of product malfunction; traffic is transferred from the active to the standby unit through the patch panel connection, without the need for human intervention.

Tmedia 1+1 solutions ensure redundancy in terms of: power redundancy, packet network redundancy and facility protection.

The Tmedia TMG3200-STM1+1 provides a highly available and redundant telecommunications system with the capacity of one STM1.

Characteristics of the TMG3200-STM1+1:

- ✓ 2U VoIP gateway
- ✓ 2016 VoIP channels
- ✓ 1 STM1
- ✓ Redundant AC or DC power supplies

IMPORTANT: Tmedia 1+1 solutions are only available for NEW Tmedia products running TMG-CONTROL version 2.6. For more information with regard to TelcoBridges Tmedia 1+1 solution, please contact your certified TelcoBridges Reseller and/or your TelcoBridges Sales Representative.

Ordering information

Standard Tmedia TMG3200-STM1 Units

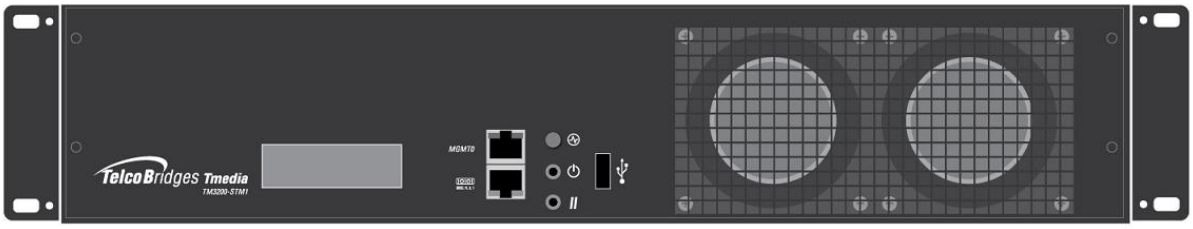
Part #	*Description*
TMG3200-STM1	1 x STM1

Tmedia TMG3200-STM1+1 Units

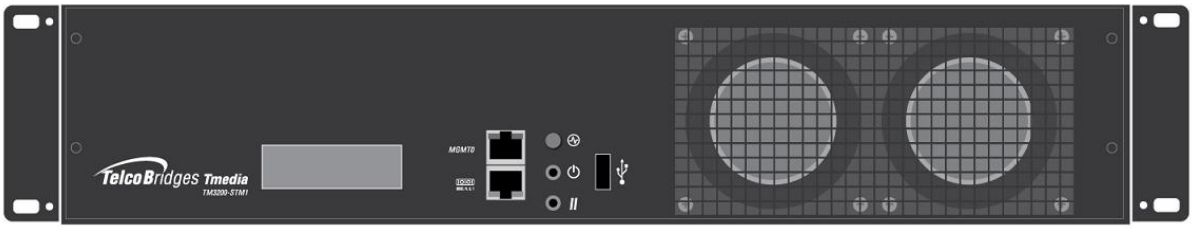
Part #	*Description*
TMG3200-STM1+1	1 x STM1

Each configuration is available in redundant AC or DC power.

ILLUSTRATIONS



Standard Tmedia TMG3200-STM1
2U VoIP / media gateway
Front view



Tmedia TMG3200-STM1 +1
2U VoIP / media gateway
Front view

1+1 Patch Panel for the Tmedia TMG3200-STM1 & TMG3200-STM1 +1, 1U
19" wide rackmount
Passive device

Capacity and voice processing
2,016 VoIP channels

PSTN interfaces
1 OC3/STM1 (with Automatic Protection Switching - APS)
DualRJ48C for BITS or T1/E1 for signalling
SFP-LC connector type

VoIP interfaces
Dual 100/1000Base-T
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 RJ45 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 (per unit)
90 to 260 VAC, 47 to 63 Hz, -40 to -60 VDC
Redundant power supply option with dual power inputs
Maximum 138W power consumption

Physical characteristics (*Dimensions & Weight per unit)*
2U, 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