

Tornado M20

IP Video Phone

PRODUCT OVERVIEW

Tornado M20 is an advanced VoIP and Video phone designed to meet the growing communication needs of consumers and businesses. It offers PBX features and advanced video conferencing capabilities for more complete communication experience. Additionally, Tornado M20 offers a number of value added features such as voicemail with local message storage, chat, email, news, local weather information, and more.

Color LCD Display

Tornado M20 IP Video Phone offers a color LCD display which provides users with a feature-rich phone management interface. The display can be also used for Video-on-Demand content presentation such as video streaming, video training, video conferencing, video telephony, video training, and video information sharing.

Four VoIP Lines and Advanced SIP Support

Tornado M20 IP Video Phone supports up to four VoIP lines, each with a standalone PBX functionality. The IP Video Phone also offers advanced SIP support and can seamlessly interoperate with any SIP registrar, proxy or outbound proxy server.

IPTV and Video-on-Demand Support

Tornado M20 IP Video Phone can deliver high quality video streams including online TV (IPTV) and Video-on-Demand directly on its large LCD screen or on a connected TV screen. The device supports the most recent MPEG4 compression technology which enables it to deliver optimal video quality even in networks with limited bandwidth. All video streams are encrypted for privacy and copyright protection.

Digital Music and Internet Radio Delivery

In addition to video capabilities, Tornado M20 IP Video Phone can also receive and reproduce streaming audio content, enabling users to enjoy digital music and Internet radio. Tornado M20 supports high compression MP3 algorithm for maximum quality of the delivered audio streams.

Video Conferencing H.263 Support

Tornado M20 IP Video Phone features advanced Video Conferencing capabilities which enable subscribers to conduct high-quality video conversations with friends and family. To initiate a video conversation, subscribers simply dial the phone number of another Tornado M20 subscriber and enter the video conferencing mode which utilizes the H.263 standard.

Standalone PBX Functionality

Tornado M20 IP Video Phone offers PBX features without the need to interact with a central server (i.e. such features are supported internally). The device offers DID, Caller ID, Speed 2-digit Dialing, Anonymous Call Rejection, Call Forward, Call Return, 3-way Conferencing and other PBX features.

Integrated Voicemail System with Unified Messaging

Tornado M20 IP Video Phone comes with an integrated voicemail system which can accept and record up to 80 calls/messages. Unlike traditional PBX systems which store voicemails in a central server, Tornado M20 stores messages locally and can make them available to users even in cases when the service provider's network is unavailable. The IP Phone supports advanced Voicemail menu system to guide callers during the process of leaving a voicemail, and to allow remote retrieval and administration of voicemail messages.

Peer Auto Discovery

Tornado M20 IP Video Phone automatically discovers its peers located within the same local area network (LAN). Such functionality allows LAN users to talk directly to each other without the need to use third party servers such as registrars, proxies, or gateways. For outbound calls, Tornado M20 supports multiple routes to allow calls to be terminated to alternative proxies or gateways.

100+ Over-The-Top (OTT) and Free-To-Air (FTA) Channel Support *

The server includes over 100 built-in OTT and FTA channels that allow service jump-start with a large number of pre-defined channels. In addition, the OTT channels do not require bandwidth support because the STB devices will access them directly without connecting to the Streaming server. OTT and FTA channels are great IPTV service complement that provides better channel variety and selection.



Key Features

- Color LCD Display
- Four VoIP Lines and Advanced SIP Support
- IPTV and Video-on-Demand Support
- Digital Music and Internet Radio Delivery
- Video Conferencing H.263 Support
- Standalone PBX Functionality
- Integrated Voicemail System with Unified Messaging
- Peer Auto Discovery
- Automated Device Provisioning
- Multiple Call Routes and Route Failover
- Calling Card IVR Support

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IP Video Phone

DATASHEET

Features

Video and Audio Features:

- IPTV Streaming Support
- H.263 Videoconferencing Support
- Video on Demand (VOD) Support
- Pay-per-View (PPV) Support
- Digital Audio Streaming (Online Radio)
- Picture Slide Show Support
- Content Library Support for Remote PC
- Low Bit Rates Support
- Interface to Local PC Content
- 100+ Over-The-Top (OTT) and Free-To-Air (FTA) Channel Support *

Value-Added Features:

- Chat Client Compatible with ICQ, AOL, and MSN
- Email Reader
- News Reader
- Weather Interface
- Calculator
- Currency Converter

VoIP Telephony Features:

- Four VoIP Phone Lines
- SIP Protocol with NAT Traversal
- Peer Auto Discovery
- Standalone IP Centrex/PBX Functionality
- Call Waiting, Call Forward, Call Hunting
- Automated Call Forwarding to Multiple Numbers
- Advanced IVR Support and Management
- Auto Attendant Support
- Voice Encryption
- Wake-Up Phone Service

Voicemail (IVR) Features:

- Calling Card IVR Support
- Up to 80 Messages Stored Locally
- IVR System Management
- Voicemail Auto Attendant
- Voicemail to Email Support
- Voicemail HTTP Download
- Unified Messaging
- Voicemail Notification
- Remote HTTP Web Management

Provisioning, Administration, and Maintenance:

- Web Browser Administration and Configuration (via integrated web server)
- Telephone Keypad Configuration with Interactive LCD Text Prompts
- Automated Secure Provisioning and Upgrades via HTTP
- Asynchronous Notification of Upgrade Availability
- Automated Firmware Upgrade
- Automated Clock Synchronization
- Non-Intrusive, In-Service Upgrades
- Report Generation and Event Logging
- Per Line and Purpose Configurable System Log and Debug Options

- HTTPS with Factory Installed Client Certificate
- HTTP Digest - Encrypted Authentication via MD5 (RFC 1321)
- Password Protected Admin and User Access
- Up to 256 bit RCS or RC4 Encryption
- Device Locking

IP Centrex/PBX Features:

- Inbound Call Filtering
- Direct Inward Dial (DID)
- Speed 2-digit Dialing
- Anonymous Call Rejection
- Call Forward All Calls
- Call Forward Busy
- Call Forward No Answer
- Managed Call Forward
- Blind Call Forward
- Call Return
- Caller ID
- Caller ID Block
- Caller Name
- Call Waiting
- Caller ID for Call Waiting
- Last Call Redial
- Last Inbound Call Return
- Distinctive Ring
- Do Not Disturb (DND)
- Forward to Voicemail
- Hold Call
- 3-way Conference
- Permanent Caller Block
- Priority Call
- Call Screening
- Urgent Call
- Virtual Ring
- Music-on-Hold

Technical Specifications

Display:

- 3.5" Color LCD

Connectors/Interfaces:

- One Ethernet Port (RJ-45)
- One Video RCA Analog Port
- One Stereo Audio RCA Analog Port
- One USB 1.1 Port (Type A)
- WiFi/Wireless 2.4Ghz 802.11b Interface

Data Networking:

- MAC address (IEEE 802.3)
- IPx4 - Internet Protocol Version 4 (RFC 791) Upgradeable to v6 (RFC 1883)
- ARP - Address Resolution Protocol (RFC 826)
- DNS - A Record (RFC1706), SRV Record (RFC 2782)
- DHCP - Dynamic Host Configuration Protocol (RFC 2131)

- ICMP - Internet Control Message Protocol (RFC 792)
- TCP - Transmission Control Protocol (RFC 793)
- UDP - User Datagram Protocol (RFC 798)
- RTP - Real Time Protocol (RFC 1889)
- DiffServ (RFC 2475), Type of Service - TOS (RFC 791/1349)
- SNTP - Simple Network Time Protocol (RFC 2030)

Voice and Video Codecs:

- MPEG4/SP
- MP3
- G.711 (A-law and μ -law)
- G.711 Annex I
- G.726 (16/24/32/40 kbps)
- G.729, G.729A
- G.726-32

Voice Gateway:

- SIP v2 - Session Initiation Protocol Version 2 (RFC 3261, 3262, 3263, 3264, 3265, 3842)
- SIP Proxy Redundancy - Dynamic via DNS SRV, A Records
- Re-registration with Primary SIP Proxy Server
- Secure (Encrypted) Calling via Pre-Standard Implementation of Secure RTP
- Codec Name Assignment
- Dynamic Payload
- Adjustable Audio Frames per Packet
- DTMF: In-band and Out-band (RFC 2833)
- Flexible Dial Plan Support with Interdigit Timers and IP Dialing
- Call Progress Tone Generation
- Adaptive Jitter Buffer
- Frame Loss Concealment
- Full Duplex Audio
- Echo Cancellation - (G.165/G.168) up to 128ms
- VAD - Voice Activity Detection with Silence Suppression
- Attenuation / Gain Adjustments
- Flash Hook Timer
- MWI - Message Waiting Indicator Tones
- VMWI - Via FSK
- Polarity Control
- Hook Flash Event Signaling
- Caller ID Generation (Name and Number) - Bellcore, DTMF, ETSI
- Music on Hold Client (Downloadable MOH Content)

Power:

- 5V, 2A - External

Dimensions:

- 10" (W) x 6" (H) x 5" (D)



SysMaster
2700 Ygnacio Valley Rd, Suite 210
Walnut Creek, CA 94598
United States of America

Email: sales@sysmaster.com
Web site: www.sysmaster.com

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