

# SUNRISE TELECOM

# VoIP Module

SSMTT-36

## Data Sheet



The VoIP Module is part of a family of Plug-In modules for the SunSet MTT® and xDSL test sets

The SSMTT-36 Voice over IP (VoIP) Module, part of the SunSet Modular Test Toolkit (MTT) family of products, is a rugged, battery-operated hand-held test solution for installing and troubleshooting VoIP systems. The MTT product family features the SunSet MTT as the industry's premium handheld platform for access network service installation, verification, and troubleshooting applications. The VoIP Module offers a comprehensive suite of tools to accelerate the installation of VoIP service in both telco and cable architectures. Call setup for SIP and H.323 quickly verifies service connection. The VoIP Module also supports basic TIMS testing and dialing on the 2-wire interface.

## FEATURES

- Emulates IP phone, supports talk and listen with the MTT chassis's built-in microphone and speaker or an external handset
- Provides VoIP traffic analysis with transmit and receive packets count, loss, drop, replay, jitter, and other statistics
- Supports signaling message logging and decoding for H.323 and SIP protocols
- Measures voice quality on VoIP calls, calculates MOS and R-factor values during a call and produces report after
- Emulates analog phone, supports talk and listen with the MTT chassis's built-in microphone and speaker or an external handset
- Analyzes analog calls and displays caller ID
- Transmits various frequencies, receives and measures configurable frequencies and generates reports in controller or responder mode
- Measures loop current in analog phone line

## BENEFITS

- Lightweight
- Flexible modular design
- Eliminates the need for multiple instruments
- Leverages existing MTT platform
- Cost-effective and future-proof
- Helps field technicians to isolate defective IP phones in troubleshooting IP Telephony networks
- Assists field technicians to troubleshoot VoIP call setup problems
- Provides an analytical view of the VoIP traffic at the test point
- Validates the quality of a VoIP call without the need for a second tester to be setup at the other end
- Helps field technicians to isolate defective analog phones in troubleshooting analog phone networks
- Assists field technicians to troubleshoot analog phone line problems

## SPECIFICATIONS

POTS Interface: RJ-11  
Impedances: 600Ω, 900Ω  
Interface: 2-wire  
LAN Interface: Ethernet 10Base-T/100Base-T with RJ-45 connector  
Handset jack: RJ-9 connector  
Chassis built-in microphone/speaker

## NETWORK INTERFACE

### Network Interface and IP Support

10Base-T, 100Base-T, and auto-sense 10/100Base-T Ethernet  
Automatic link status reporting  
Static IP or auto-IP address through DHCP  
PING tests with configurable packet size and test counts  
Trace Route displays hop count and traced IP addresses  
DHCP Client and DNS client support

### Signalling Protocols

#### H.323 (SWMTT-36H323)

H.323 version 4: Supports Fast Connect  
Supports RAS with H.323 Gatekeeper

#### SIP (SWMTT-36SIP)

SIP UAC and UAS  
SDP support in session negotiation

#### CODEC

G.711 μlaw and Alaw  
G.729A  
G.723.1 5.3k and 6.3k  
Configurable codec preference list

### IP Phone Simulation Testing

Supports H.323 IP phone simulation through a Gatekeeper or directly to a H.323 phone by IP address  
Supports SIP IP phone simulation through a Proxy server or directly to a SIP phone by IP address  
DTMF 0-9, #, \*  
Speed dial feature enables one key dialing

### VoIP Call Analysis

Call setup and tear down messages decoding  
Receive and transmit voice packet counts, call statistics with jitter, drop, lost, replay, DTMF, and silent packet counts

### Voice Quality Measurement (SWMTT-36VQM)

Monitors voice packet impairment factors  
Reports voice quality MOS in a call  
Conforms to ITU-T G.107E model

## POTS INTERFACE

### Transmit Frequency Measurements

Transmit Frequency  
Range: 50 Hz to 20 kHz  
Resolution: 1 Hz  
Accuracy: ± 0.5 Hz

### Transmit Level

Range: +10 dBm to -40 dBm (600Ω), +8 dBm to -40 dBm (900Ω)  
Resolution: 0.1 dBm  
Accuracy: ± 0.5 dB

### Transmit Modes

Fixed frequency from 50 Hz to 20 kHz  
Frequency Sweep: Programmable Start/Stop Frequency, Step Rate, and Step Increment with programmable frequency skip  
3-Tone Slope: 404 Hz, 1004 Hz, and 2804 Hz  
Quiet Termination

### Receive Frequency Measurements

#### Receive Frequency

Range: 50 Hz to 20 kHz  
Resolution: 1 Hz  
Accuracy: ± 0.5 Hz

#### Receive Level

Range: +10 dBm to -70 dBm (600Ω), +8 dBm to -70 dBm (900Ω)  
Resolution: 0.1 dBm  
Accuracy: ± 0.5 dB

### Loop Current/Voltage

DC Voltage Range: 300V Max  
Current Range: 0mA to 100mA

### Dial Mode

Signaling: Loop Start  
Programmable Flash duration from 300 to 1000 ms  
Dial Method: DTMF, MF, and Dial Pulse  
Dial Signals (Digits): 0 to 9, \* and #  
Line Hold Circuit: DC Resistance approximately 200Ω

### Call Analysis

Caller ID with Number, Name and Timestamp  
Call Waiting Caller ID  
3-Way Calling  
Digit Capture/Analysis

## PRODUCT DESCRIPTION

Module Size (WxLxH): 5.0 x 3.5 x 0.9 in (12.6 x 9 x 2.2 cm)  
Operating Temperature: 32° to 122°F (0° to 50°C)  
Storage Temperature: -4° to 158°F (-20° to 70°C)  
Humidity: 5% to 85% noncondensing

## ORDERING INFORMATION

SSMTT-36	VoIP Module <i>Includes basic VoIP and POTS software</i>
SWMTT-36H323	H.323 Protocol
SWMTT-36SIP	SIP Protocol
SWMTT-36VQM	Voice Quality Measurement (ITU-T G.107E)

### Recommended Cables

SA266	Cable, 100Ω, CAT 5, RJ-45 (m) to RJ-45 (m), 6'
SS164	Cable, RJ-11 (m) 6-pin Modular Plug to 2 Probe Clips, 6'
SS427	Telephone Handset

For more information or a directory of sales offices: [info@sunrisetelecom.com](mailto:info@sunrisetelecom.com) | [www.sunrisetelecom.com](http://www.sunrisetelecom.com)

