TTC-1
Tone Remote Adaptor

Midian Electronics' TTC-1, tone remote adaptor or tone termination panel, is used to control a base station radio from a remote dispatch point using a tone remote controller such as Midian's TRC series. The tone remote controller and TTC-1 are connected using a dedicated phone line, a microwave path, or a telemetry link. The units use EIA and industry standard tone remote function, monitor and guard tones.

Applications

Tone Remote Adaptor: The TTC-1 can be used with a tone remote controller such as Midian's TRC series to control a base station radio at a remote site.

Radio-Telephone Interconnect (Phone Patch): When using the TTC Option C with the TTC-1, the unit enables radio users with DTMF keypads to make telephone calls or for a phone user to communicate with the dispatcher or the field radios.

Remote Monitoring & Control: When using the TTC Option A with the TTC-1, the unit can monitor and control 4 relay inputs/outputs and/or 4 opto-isolated inputs/outputs. This can be used to turn equipment on/off, report alarm conditions, etc.

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Features

The following features are standard on the TTC-1:

Voice Prompts: The TTC-1 can generate voice prompts back to the dispatcher and/or over the air. The voice prompts can indicate a change of channel, emergency alerts, change of state on an input/output on the TTC Option A, or a user customizable voice prompt.

Tone Remote Tones: The TTC-1 uses EIA and industry standard function, monitor and guard tones. Additionally the fequencies of these tones can be customized by the user. The TTC-1 offers F1-F17 function tones.

Morse ID/Voice ID: The TTC-1 can encode a morse ID message or a voice clip can be created to encode a voice ID.

The following features are standard on the TTC-1:

TTC Option A: Remote Control Wild Card with 4 relay and/or 4 opto-isolated inputs/outputs for monitoring and controlling equipment or alarm conditions.

TTC Option C: POTS Interface. The POTS interface enables a phone user to dial into the radio system or for a radio user equipped with a DTMF keypad to access the phone line and make telephone calls.

TTC Option D: Option local test handset.

TTC Option G: Rolling code voice scrambler option adds Midian's TVS-2 for use in encrypted radio systsems.

TTC Option H: Voice inversion scrambler option adds Midian's VPU-15 for use in scrambled radio systems.

TTC Option J: Four-Wire capability

TRC: General Specifications	
Operating Voltage	13-18 VDC
Operating Current	125 mA
Operating Temperature	-30 to +60 C
Line Input Level	-25 dBm to +10 dBm
Line Input/Output Impedance	600 ohms balanced
Notch Filter Depth	45 dB relative to 1 KHz
Dimensions	6” W x 1.45” H x 7.6” D
Relay Outputs	F1/F2
Open Collector Outputs	F1-F17
4-Wire Crossover Levels	Adjustable

TTC-1: General Specifications		
Tone	**Frequency***	**Level & Duration**
High-Level Guard Tone	2175 Hz	10 dBm for 120 msec
Low-Level Guard Tone	2175 Hz	-20 dBm continuous
Monitor	2050 Hz	0 dBm for 40 msec
F1	1950 Hz	0 dBm for 40 msec
F2	1850 Hz	0 dBm for 40 msec
F3	1750 Hz	0 dBm for 40 msec
F4	1650 Hz	0 dBm for 40 msec
F5	1550 Hz	0 dBm for 40 msec
F6	1450 Hz	0 dBm for 40 msec
F7	1350 Hz	0 dBm for 40 msec
F8	1250 Hz	0 dBm for 40 msec
F9	1150 Hz	0 dBm for 40 msec
F10	1050 Hz	0 dBm for 40 msec
F11	950 Hz	0 dBm for 40 msec
F12	850 Hz	0 dBm for 40 msec
F13	750 Hz	0 dBm for 40 msec
F14	650 Hz	0 dBm for 40 msec
F15	550 Hz	0 dBm for 40 msec
F16	2350 Hz	0 dBm for 40 msec
F17	2450 Hz	0 dBm for 40 msec

*F1-F15 follow EIA and industry standards. F16 and F17 are Midian custom tones for extended functionality. These tones can also be customer programmed to other frequencies if desired.