MIDIAN ELECTRONICS

35th Anniversary

- Voice Security
- Tone Signaling
- Tone Remotes
- Voice Storage
- Local Remotes
- Radio Dispatch
- ANI Systems
- Interoperability
- Paging
- Interconnects
- Remote Monitoring & Control

2010-2011 Product Catalog

About Midian Electronics

Midian Electronics was founded in 1975 by Chuck Soulliard when he introduced Pulse Tone and MTS/IMTS encoders and decoders for mobile radiotelephones. In 1981 Midian Electronics developed the first voice scrambler small enough to fit inside of a two-way radio. Since then Midian has been a leader in voice security and tone signaling products for two-way radio systems.

Midian's product line has expanded to include tone remotes, interoperability, voting tone encoder, radiotelephone interconnects, paging terminals, repeater makers and Intermodulation study software.

Everyone at Midian Electronics would like to thank you for your continued support.

Orders

To place an order please contact Midian at 1-800-MIDIANS (643-4267) or 520-884-7981. We may also be reached via e-mail at sales@midians.com or via fax at 520-884-0422.

Midian accepts Visa, MasterCard, American Express and Discover and wire transfers. Net 30 terms and COD Company Check terms are available upon approval.

Warranty

Midian offers one of the best warranties in the industry: 3 years on both parts and labor. This reflects our commitment to quality, reliability and customer satisfaction.

Customized Products

With our in-house software, hardware and CAD capabilities, Midian Electronics is able to create custom hardware and software designs to meet our customers' unique applications and to continue to support them after the sale.

For More Information

This catalog is an overview of the products Midian manufactures. If you need further technical information on any of our products, we have manuals and specifications available for you. Please contact our sales staff or visit our website at www.midians.com for additional product and technical information.

Features, options, specifications and product availability in Midian's catalog, brochures, manuals and website are subject to change without notice.

FleetSync is a trademark of Kenwood. G-Star is a trademark of Harris. MDC-1200 is a registered trademark of Motorola.

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Chuck Soulliard: President: Chuck founded Midian in 1975. Chuck got involved in ham radio when he was young and continued his electronics education in the US Navy and college. Prior to starting Midian he worked for several GE, Motorola & Aerotron two-way radio shops, Motorola C & E and Pima County Communications.

Michael Soulliard: General Manager and V.P. of Sales & Marketing: Michael joined Midian in 1998 and his background includes a Masters in Business Administration and a Bachelors degree in Marketing. Michael is available for identifying the best product for your application, quotations, technical support and customer service assistance.

Megan Herzog: Vice President of Production: Megan has been with Midian for more than 30 years. Megan coordinates the functions of production, purchasing and quality control to ensure excellent customer service and product quality.

Tina Quintana: Inside Sales: Tina has been with Midian for 7 years. Tina is available to assist you with customer service requests such as orders, quotations, repairs and RMA.

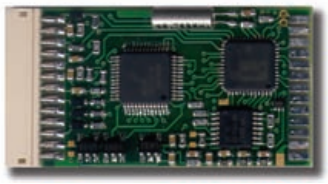
Mark Goudin: Applications Engineer: Mark has over 30 years experience in electronics including television, CB and two-way radio. Mark can assist you with applications integrating Midian products to your two-way radio system, as well as technical support on our products.

Jimmy Bow: Technical Support: Jimmy has over 20 years electronics experience in two-way radio, paging and consumer electronics. Jimmy is responsible for Midian's quality control and for technical assistance with our products.

Barry Bine: Lead Software Engineer: Barry has been with Midian since 1998 and has over 25 years of engineering experience. Barry has a Bachelors degree in Computer Engineering from the University of Arizona. He is responsible for coordinating Midian's product development, as well as developing and maintaining Midian's products.

Allen Shea: Product Development Engineer: Allen brings to Midian over 20 years of engineering experience with a focus on software development, Windows applications and networking. In addition to software development Allen also does hardware layouts of Midian's products.

VS-1200
Frequency Domain Scrambler



Midian's VS-1200 series is a new Digital Signal Processor (DSP) based Frequency Domain voice scrambler offering a high level of voice privacy. This new technology is comparable in security to rolling code scrambling, yet does not require synchronization.

The DSP converts the analog signal into quantitized digital data. It then converts the "Time Domain" signal into the "Frequency Domain". This results in an audio "frequency spectrum", which is then partitioned into bins that are encrypted by the non-linear key generator. The digitized data is converted back to the analog realm using a digital to analog converter.

The above technique and the lack of synchronization result in excellent audio quality, high security and enables the VS-1200 to be used in virtually any type of radio system. These systems include HF SSB, Conventional two-way, Trunking, and Voting.

The VS-1200 series has the following features:

- Total code combinations: ~6.2 x 10^23
- Actual code combinations: ~4 billion
- Number of selectable keys: 3
- 4 user-programmable levels of security including voice inversion
- Multi-Format ANI including Motorola's MDC-1200, Kenwood's FleetSync, Harris' G-Star (aka GE-Star), DTMF and 5-Tone
- Automatic detection of scramble
- Programmable audio levels
- Dimensions: 1.59" L x 0.83" W x 0.21" H
- Plug in modules are available for Kenwood, Motorola and Vertex. Plug ins for HYT, Icom, and Tait are in development
- Speaker microphone version is coming soon (VS-1200-SMxx series)

Below are some common applications for voice scramblers:

Military: Maintain tactical level classified information and the secrecy of planned tactical operations (TVS-2 and VS-1200).

Police: Keep criminals & news media from listening in on police communications. Criminals that eavesdrop may use the knowledge of police communications to avoid detection by police & plot activities. Protect sensitive information from being used by the news media or crime scenes from being interfered with prior to a police arrival.

Ambulance: Secure communications maintain the integrity of patients' information (HIPAA) from being intercepted when transmitted over the air.

Fleets: Taxi, towing and fishing competitors often use information intercepted over the air to take business from one another.

Industry: Some extreme activists eavesdrop on chemical and mining companies' communications. These activities can cause unnecessary harassment and litigation and may cost the companies financially.

Utilities: In an effort to protect a country's infrastructure, utilities are encrypting communications to prevent outsiders from learning information that could expose weaknesses in construction, operations, etc. that could make the site a more susceptible target.

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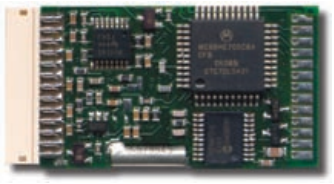
TVS-2
Hopping Code Scrambler

Midian's TVS-2 offers a high-level of voice security for two-way radio communications. By using the hopping code type of rolling code scrambling, Midian's TVS-2 offers a higher level of security versus other rolling code scramblers (see comparison below). The TVS-2 incorporates Midian's Kryptic signaling format which allows for greater control of fleet communications (see below) and the automatic detection of scrambled/clear audio. A Dual Mode option is available upon request for systems that require both rolling code and voice inversion scrambling for interoperability.



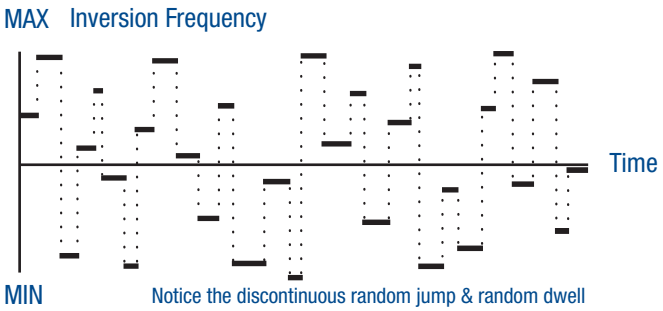
The TVS-2 series has the following features:

- Number of possible codes: ~ 40 Trillion
- Number of selectable keys: 4
- 5 user-programmable levels of security
  - Level L4: 12-25 hops per second
  - Level L3: 6-12 hops per second
  - Level L2: 1.2-2.4 hops per second
  - Level L1: 0.8-1.2 hops per second
  - Voice Inversion
- **Midian's Kryptic signaling format for:**
  - ANI & Emergency ANI
  - Selective Calling
  - Radio Kill
  - Spy
  - Radio Check
  - Over-The-Air-Reprogramming (OTAR) of the security keys
- Dimensions: 1.64" L x 0.84" W x 0.2" H

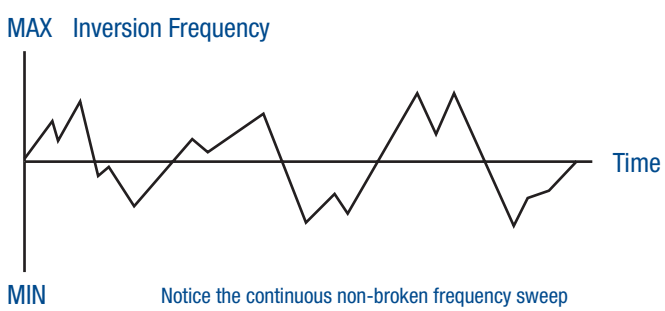
TVS-2 plug-in modules are available for HYT, Icom, Kenwood, Motorola, Tait and Vertex.

Hopping versus Sweeping Rolling Code Scramblers: Midian's TVS-2 uses the hopping type of rolling code scrambling, instead of the sweeping type, for higher security. Both types of scramblers claim a certain number of hops per second. Sweepers imply a higher level of security because they "hop" hundreds of times per second. However, it is the length of the hop that is important rather than the number of hops per second. Each "hop" of a sweeper is approximately 1 Hz in length whereas each hop of a true hopping scrambler is at least 300 Hz. Therefore it would take ~300 hops of a sweeper to equal the change of a true hopper in one hop. Because of the negligible frequency change of a sweeper, sweepers are susceptible to attack by tracking the sweeping with a phase lock loop (PLL) circuit.

Midian's Frequency Hopper

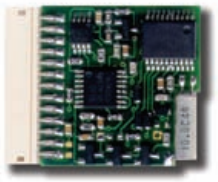


Competitive Frequency Sweepers



Voice Inversion Scramblers

Voice inversion scramblers protect two-way radio communications from eavesdropping by casual listeners. For more sensitive communications Midian recommends using the VS-1200 or TVS-2.



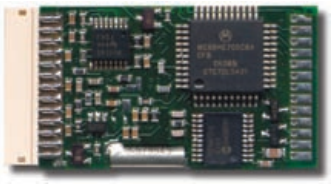
VPU-12A
Voice Inversion Scrambler

The VPU-12A is a user-programmable voice inversion scrambler with 16 different inversion frequencies that are selectable using 4-line binary. The VPU-12A offers the same features as the VPU-12 except the VPU-12A has mode indications.

The VPU-12A series has the following features:

- Number of Programmable Inversion Codes: 16
- Inversion Frequency Range: 2100 to 4100 Hz
- Dimensions: 1.0" L x 0.85" W x 0.15" H

A plug-in version of the VPU-12 is available for Tait.



VPU-15
Voice Inversion Scrambler with Kryptic Signaling

Midian's VPU-15 incorporates voice inversion scrambling with Midian's Kryptic signaling format. These signaling features allow for greater control of fleet communications and the automatic detection of scrambled/clear audio. (See below for Kryptic features)

The VPU-15 series has the following features:

- Total Inversion Codes Available: 37
- Number of Selectable Inversion Codes: 4
- Midian's Kryptic Signaling Format for:
  - ANI & Emergency ANI
  - Selective Calling
  - Radio Kill
  - Spy
  - Radio Check
  - Over-The-Air-Reprogramming (OTAR) of the Security Keys

Plug-in modules of the VPU-15 are available for HYT, Icom, Kenwood, Motorola, Tait and Vertex.

VS-1000
Voice Inversion Scrambler

Midian's VS-1000 is a 16-code voice inversion scrambler that is programmable to any inversion frequency between 2100 Hz and 4096 Hz.

VS-1050
Voice Inversion Scrambler with Multi-Format ANI

Midian's VS-1050 offers the same security features as the VS-1000, but offers ANI and Emergency ANI in the following signaling formats:

- Motorola's MDC-1200
- Harris' G-Star (aka GE-Star)
- 5-Tone (all formats)
- Kenwood's FleetSync
- DTMF

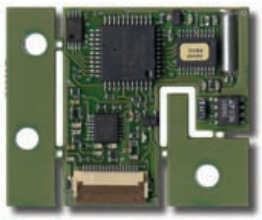
Plug-in modules of the VS-1000 & VS-1050 are available for Kenwood, Motorola and Vertex. More plug ins for HYT, Icom and Tait are in development. Speaker microphone version is also available.

Plug-In Voice Scramblers

Plug-In Voice Scramblers for Motorola Radios

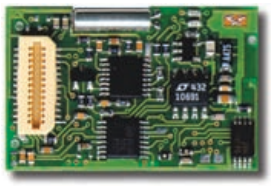
- Portables supported: Commercial Series, Professional Series, HT-1000 (Versions C & D)
- Mobiles supported: Commercial Series, Professional Series
- Scramblers include the MOT-TVS-2 Series, MOT-VPU-15 Series, VS-1000-MPxx, VS-1050-MPxx, VS-1200-MPxx
- Products for MotoTRBO are in development

Plug-In Voice Scramblers for Tait Radios



- Portables supported: Tait Orca, TP-8100
- Mobiles supported: T-2000 Series, TM-8000 Series
- Scramblers include TVS-2 Series, VPU-15 Series, VPU-12 Series (VS-1000, VS-1050, VS-1200 in development)

Plug-In Voice Scramblers for Kenwood Radios



- Portables supported: NX-200, NX-300, TK-2170, TK-2180, TK-3170, TK-3180
- Mobiles supported: NX-700, NX-800, TK-5710, TK-7180, TK-8180
- Scramblers include TVS-2 Series, VPU-15 Series, VS-1000 Series, VS-1050 Series, VS-1200 Series

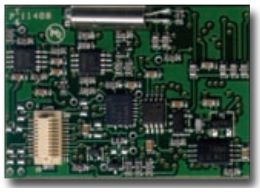
Plug-In Voice Scramblers for Icom Radios

- Portables supported: F-3, F-3G, F-4, F-4G, F-14, F-24, F-30, F-30G, F-33G, F-40, F-40G, F-43G, F-3020, F-4020
- Mobiles supported: F-120, F-220, F-320, F-420, F-520, F-620, F-1020, F-1720, F-1820, F-2020, F-5020, F-6020
- Scramblers include TVS-2 Series, VPU-15 Series, VPU-11 Series (VS-1000, VS-1050, VS-1200 in development)

Plug-In Voice Scramblers for Vertex Radios

- Portables supported: VX-350, VX-410, VX-420, VX-600, VX-800, VX-820, VX-900, VX-920
- Mobiles supported: VX-2100, VX-2200, VX-4000, VX-4100, VX-4200, VX-5500, VX-6000
- Scramblers include TVS-2 Series, VPU-15 Series, VS-1000 Series, VS-1050 Series, VS-1200 Series

Plug-In Voice Scramblers for HYT Radios



- Portables supported: TC-780
- Mobiles supported: TM-800
- Scramblers include TVS-2 Series, VPU-15 Series (VS-1000, VS-1050, VS-1200 in development)

Local Remote Controllers

DDU Series
Local Remote Controllers with ANI Display Decoder

Shown with handset and cradle option

Local Remote Controller: The DDU can be used to locally control a base station radio for transmitting and receiving audio to and from the field radios. This helps reduce desktop clutter by eliminating the need to have both the base station radio and the ANI display decoder on the desktop. The DDU comes standard with a built-in microphone and speaker, or an optional gooseneck microphone or handset and cradle can be added.

Desktop Display Decoder: Midian's DDU will decode and display incoming ANI's and Emergency ANI's to provide the dispatcher with the radio user's identity. This assists in correctly identifying users, stopping system abuse or identifying users in distress.

- Decodes and displays ANI and Emergency ANI
- Alias database supports up to 135 user names
- 2-line LCD display shows ANI/ENI and Alias
- 10 number ANI memory recall with scroll buttons
- Repeater access control mode employing user ID validation

DDU-100: **DTMF** (encode & decode)
DDU-200: **5-Tone** (encode & decode)
DDU-300: **Midian's Kryptic** (encode & decode)
DDU-400: **Harris' G-Star** (decode only)
DDU-500: **Motorola's MDC-1200** (decode only)
DDU-600: **Kenwood's FleetSync** (decode only)

PDE-1
Local Remote Controller with Paging Encoder

Shown with optional gooseneck microphone

Local Remote Control: The PDE-1 can be used to locally control a base station radio for transmitting and receiving audio to and from the field radios. This reduces desktop clutter, eliminating the need to have both the base station and the paging encoder on the desktop.

Paging & Dialing Encoder: The PDE-1 encodes multiple paging formats including POCSAG, 2-Tone (tone or tone & voice), DTMF, 5-Tone and Pulse Tone.

- 10 number memory dial
- Alias database supports up to 155 users with autodial
- Simultaneously supports multiple paging/signaling formats
- 2-line LCD display shows Pager Code and Alias
- POCSAG supports 512, 1200 & 2400 baud with "canned" alpha messages

TRA
Telephone to Radio Adaptor

Local Remote Controller: The TRA can be connected between a regular telephone, a cordless phone or an unused extension on a KSU office phone system and a base station radio. An office worker may then communicate with the field radios simply by picking up a telephone and accessing the dedicated extension. Field units can ring the extension by multi-clicking the PTT or using DTMF to speak with someone in the office. The TRA also supports selective calling of field units and paging.

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TRC Series
Tone Remote Controllers

Midian Electronics' Tone Remote Controllers enable the dispatcher to remotely control a base station radio via a dedicated phone line, microwave path or telemetry link to a tone remote adaptor such as Midian's TTC-1 or TTC-2. The TRC products use EIA and industry standard tone remote tones – guard, monitor and function tones (F1-F16 plus F17). Midian also offers the TRC-2 for simple tone remote control using F1 or F1-F2 only.

Additionally the TRC series offers tone signaling options for controlling and monitoring fleet communications for identifying and stopping system abusers. When the field user keys the radio, a PTT ID or ANI is transmitted. This ID can be displayed on Midian's TRC along with an alias and status (if applicable). An Emergency ANI can also be decoded and displayed to identify radio users in distress. The TRC-100 and TRC-200 can also be selectively called by other tone remote controllers or field units using DTMF or 5 tone. Parallel remote channel indication is available on TRC's on the liquid crystal display. Programmable speaker mute for parallel TRC's in the same room.

TRC-1: Deluxe tone remote controller with DTMF dialing (Optional LCD and paging encoder).

TRC-2: Basic F1 and F2 tone remote controller (Optional DTMF dialing).

TRC-100: Tone remote controller with **DTMF** ANI & ENI display decoding, as well as DTMF dialing for features such as Selective Calling, Radio Kill, and Spy.

TRC-200: Tone remote controller with **5-Tone** ANI & ENI display decoding, as well as 5-Tone dialing for features such as Selective Calling, Radio Kill, and Spy.

TRC-400: Tone remote controller with **Harris' G-Star** ANI & ENI display decoding.

TRC-500: Tone remote controller with **Motorola's MDC-1200** ANI & ENI display decoding.

TRC-600: Tone remote controller with **Kenwood's FleetSync** ANI & ENI display decoding.

TRC-700: Tone remote controller with **Pulse Tone (1500 Hz and 2805 Hz)** encoding and decoding for **hospital HEAR systems**.

TRC-1000: Tone remote controller with a multi-format paging encoder that supports 2-Tone, DTMF, 5-Tone and Pulse Tone.

Shown: TRC-100 with optional gooseneck microphone

TRC Options:

- TRC Option A: Gooseneck Microphone
- TRC Option B: Wall power adaptor 120/240 VAC
- TRC Option C: Handset & Cradle
- TRC Option D: Serial printer cable
- TRC Option E: Line 2/Supervisor capability
- TRC Option F: 4-wire capability
- TRC Option H: 2-Tone, 5-Tone or Pulse Tone paging (TRC-1 only)
- TRC Option I: LCD Display (TRC-1 only)
- TRC Option J: DTMF Dialing (0-9, *, #) (TRC-2 only)

TTC-2
F1-F2 Tone Remote Adaptor

Shown: TTC-2 with Optional Enclosure

Midian Electronics' TTC-2, tone termination panel, is used to control a remotely located base station radio from a dispatch point using a tone remote controller such as Midian's TRC series. The tone remote controller and TTC-2 are connected using a dedicated phone line, a microwave path or a telemetry link. The TTC-2 uses EIA and industry standard tone remote function (F1-F2), monitor and guard tones.

TTC-2 Options:

- TTC Option J: 4-wire capability
- TTC Option K: Optional enclosure
- TTC Option L: Optional relays for Monitor, PTT and F1/F2 Select

TTC-1
F1-F16 Tone Remote Adaptor

Midian Electronics' TTC-1, tone termination panel, is used to control a remotely located base station radio from a 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 TTC-1 uses EIA and industry standard tone remote function (F1-F16 for 16 channel control), monitor and guard tones. The TTC-1 offers unique features such as Voice Prompts and Station ID using Voice or Morse Code.

Voice Prompts: The TTC-1 can generate voice prompts back to the TRC at the dispatcher and/or over the air. The voice prompts can indicate a change of channel, emergency alerts, or a change of state on an input/output on the TTC Option A. Users can create their own wav files and use them as customized voice prompts.

TTC-1 Options:

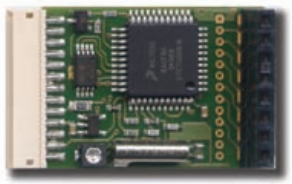
- TTC Option A: Remote control & monitoring card (4 opto-isolated inputs, 4 relay outputs)
- TTC Option C: Radio-telephone interconnect
- TTC Option G: Rolling code voice scrambler (TVS-2) option
- TTC Option H: Voice Inversion scrambler (VPU-15) option
- TTC Option J: 4-wire capability
- TTC Option N: Frequency domain voice scrambler (VS-1200 option)

PTA-16
Parallel Tone Remote Adaptor

Midian's PTA-16 is a tone remote adaptor that allows control of up to 16 radios in parallel on one dedicated line by a tone remote controller. The 16 radios can be addressed individually or in simulcast. The radio's COR causes the PTA-16 to send 2175 Hz followed by the radio's unique function tone to identify the radio to the tone remote controller, which is automatically displayed on the controller's LCD. Optionally, the PTA-16 can also change channels on each radio using DTMF signaling from the tone remote controller.

- Useful in subways, railroads, etc.
- 2 wire or 4-wire capability
- Depending on the actual number of parallel units and line length/condition, a telco line amp may be required to offset loading.

TRE-2
F1-F12 Tone Remote Encoder



Midian's TRE-2 can convert a DC remote into a tone remote or upgrade an existing tone remote controller to have more functions tones. The TRE-2 can be added to a Telco Butt-In Test Set to use as a test instrument for tone remote lines. The TRE-2 generates the high level 2175 Hz, followed by the desired function tone and the continuous low-level guard tone.

- 12 selectable function tones (F1-F12) using Midian's keypad option D
- Dimensions: 1.38" L x 0.85" W x 0.34" H

TRE-3
F1-F8 Tone Remote Encoder with 600-Ohm Line Driver

The TRE-3 is a tone remote encoder with a built in 600-ohm line driver that supports F1-F8 with 8 discrete inputs. When an input is taken low the TRE-3 will generate high-level 2175 Hz, followed by the associated function tone and finally by continuous low-level 2175 Hz keying tone. The TRE-3 will then pass voice from an audio source such as a microphone through a compressor to a 600-ohm balanced line driver to the dedicated line, telemetry link or microwave to a tone remote adaptor at a remote site.

TRE-10
F1 Tone Remote Encoder with 600-Ohm Line Driver

Midian's TRE-10 is a tone remote encoder that encodes high-level 2175 Hz, followed by the F1 function tone and finally by continuous low-level 2175 Hz keying tone. The TRE-10 has a mic audio input to pass voice from an audio source such as a microphone or paging terminal through a compressor to a 600-ohm balanced line driver to the dedicated line, telemetry link or microwave to a tone remote adaptor at a remote site. Midian's TRE-10 can be used with Midian's tone remote adaptors (TTC-1 and TTC-2).

RIC-2
Repeater Interoperability Controller

The RIC-2 is a tone remote adaptor that allows two repeaters connected by a dedicated phone line, telemetry link or microwave to key one another. For instance when Repeater A receives a signal from a portable or mobile radio, the repeater gives a COR signal to the RIC-2. The RIC-2 will generate 2175 Hz high-level guard tone, function tone and low-level guard tone to Repeater B's RIC-2 to key Repeater B and re-transmit the audio coming from Repeater A. Function tone F4 is used to have Repeater A key Repeater B and function tone F5 to have Repeater B key Repeater A.

Additionally, a tone remote controller can be connected to the two RIC-2 units for steering control mode. In addition to the scenario above, the tone remote controller can transmit to Repeater A using function tone F1, Repeater B using function tone F2 or simulcast to both Repeaters A and B using function tone F3.

RIC-8
Repeater Interoperability Controller

A DTMF equipped tone remote controller can control up to eight RIC-8 units in parallel over a dedicated line. The tone remote controller sends DTMF commands to allow the RIC-8 units and their associated repeaters to interoperate. The RIC-8 is a special tone remote adaptor that generates 2175 Hz keying tone when the radio's COR is present. The 2175 Hz keying tone activates only the radios that have received a DTMF activation code from a tone remote controller or a mobile or portable radio equipped with DTMF dialing. All others ignore the 2175 Hz keying tone.

- Allows up to 8 radios to interoperate over a dedicated line
- Programmable Time Out Timer to limit interoperability time
- 2-wire or 4-wire capability
- Simulcast capability

IS-1
Interoperability Switch / Cross-Band Repeater Maker

Midian Electronics' IS-1 is an interoperability switch or a cross-band repeater maker for allowing 2 radio systems on different channels, different bands or different protocols to communicate with one another. For example a UHF radio and an HF SSB radio can interoperate or a VHF radio can interoperate with a UHF P25 radio. This is ideal for interagency cooperation in emergency situations such as search & rescue, emergency relief, hostage situations, etc.

When the IS-1 sees COR or VOX from radio 1, the IS-1 will give a PTT output to radio 2 and pass the audio from radio 1 to radio 2 and vice versa. The IS-1 can be powered by a 9 Volt battery up to 40 hours, or can get the power from an external source such as a mobile radio or from an optional wall power adaptor. A monitor output is available for monitoring the radio traffic or connecting to a voice recorder.

Available options include:

- **IS-1 Option A:** Preconfigured cables for simple installation for some radios
- **IS-1 Option B:** Optional wall adaptor (110-220 VAC)
- **IS-1 Option C:** Optional DTMF, 5-Tone, Pulse Tone or 2-Tone decoder for remote enable/disable

VTE-1
Voting Tone Encoder

Midian Electronics' VTE-1, voting tone encoder (also known as a pilot tone generator or status tone generator) with a 600-ohm line driver, pairs with a radio receiver to create an analog satellite voting receiver or auxiliary receiver. Satellite voting receivers are spread out over a geographic area to provide greater radio coverage and are connected via a dedicated line, telemetry link or microwave to a voting comparator. The voting comparator looks at the signal to noise ratio from multiple voting receivers and passes the best quality signal to the dispatcher/repeater.

When the radio's COR is inactive the VTE-1 generates a pilot tone to the voting comparator. When the receiver's COR is active the tone is no longer generated and the audio from the radio is sent through the line driver to the voting comparator.

Midian's VTE-1 is compatible with the following types of voting systems:

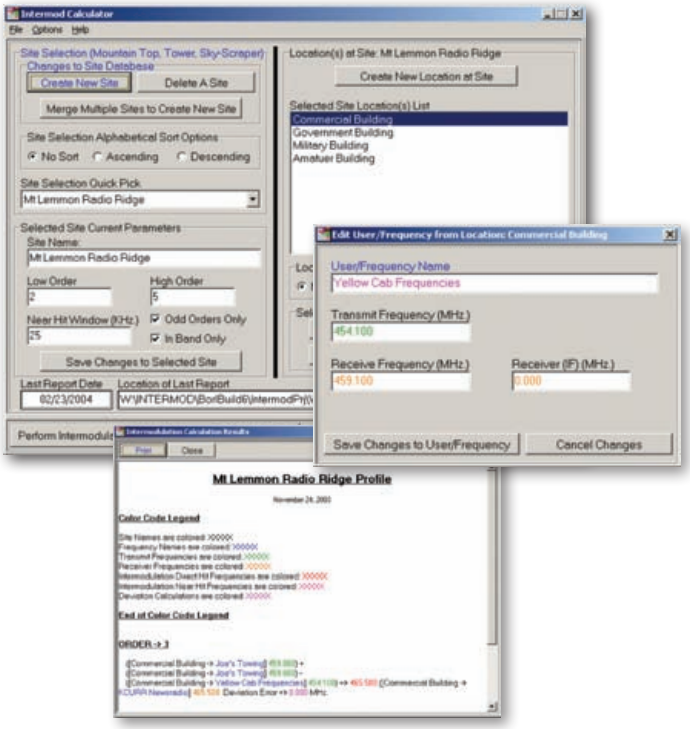
- Motorola Spectra-TAC
- JPS Communications (Raytheon) SNV-12
- GE Mastr II
- RF Technologies Eclipse
- Other systems using 1950 Hz, 2175 Hz, 1600 Hz or 2700 Hz as the voting tone.

Intermodulation Calculator

InterMod
Intermodulation Calculation Software

Midian's InterMod calculator predicts the possible occurrence of intermodulation products that may cause receiver interference. It does this by testing for odd and/or even order products caused by the mixing of multiple transmitters at a given site in a non-linear device. An un-modulated signal may not produce a direct hit. However, Midian's InterMod calculator takes into account combined modulated signals that may sweep across the channel of interest and may be multiplied/mixed.

- Create a single site or multiple site profiles
- Merge capability between multiple sites
- Reports are easy to read using different colors to highlight results and the report can be edited using a text editor that supports rich text files
- Software displays a status bar during calculations. Calculations are cancellable, but are maintained for viewing calculations already done



Voice Storage

VM-3
Voice Storage for Radio

Coming Soon!

Midian's VM-3 is a voice storage module for use in two-way radios. The VM-3 can record approximately 3 minutes of voice messages. Recording of messages occurs based on a COR indication from the radio or from an indication in the radio that a selective call has occurred (if available). A button on the radio can then be used to play back what was recorded. Plug-in versions of the VM-3 are available for Kenwood, Motorola and Vertex radios. Plug-in boards are in development for HYT, Icom and Tait.

SVR-1
Simplex Vehicular Repeater

Coming Soon!

The SVR-1 is a module that installs in mobile or portable two-way radios, after detecing COR it stores incoming audio messages (up to 3 minutes) and then retransmits the stored audio after loss of COR. Plug-in versions of the SVR-1 are available for Kenwood, Motorola and Vertex radios and plug-in boards are in development for HYT, Icom and Tait.

PR-10
Paging Regenerator and Simplex Repeater

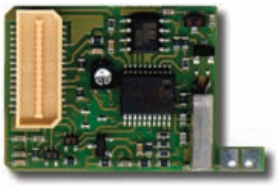
Coming Soon!

Paging Regenerator with Voice: The PR-10 decodes and records a paging sequence in 2-Tone, DTMF or 5-Tone and then records the voice page following the paging sequence. When COR drops the PR-10 regenerates the paging sequence followed by the recorded voice page.

Simplex Repeater Maker: When the PR-10 sees a COR indication from the radio it records the incoming voice or tone and voice (up to 3 minutes). When the COR indication drops the PR-10 keys the radio and retransmits the recorded audio message.

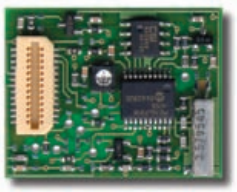
- Continuous loop message playback
- Timed voice ID
- Useful tool for testing radio coverage at potential radio sites by listening to the quality of the repeated audio.

ANI-F-IC1
Plug-In ANI Encoder for Icom Radios



- Portables supported: F-3, F-3G, F-4, F-4G, F-14, F-24, F-30, F-30G, F-33G, F-40, F-40G, F-43G
- Mobiles supported: F-120, F-220, F-320, F-420, F-520, F-620, F-1020, F-1720, F-1820, F-2020
- Requires Midian's KL-3 and IPI-1 for programming
- Supports Motorola's MDC-1200, Kenwood's Fleetsync, DTMF, 5-Tone and Harris' G-Star

ANI-F-KW1
Plug-In ANI Encoder for Kenwood Radios



- Portables supported: TK-2180, TK-3180
- Mobiles supported: TK-5710, TK-7180, TK-8180
- Requires Midian's KL-3 and KPI-1 for programming
- Supports Motorola's MDC-1200, DTMF, 5-Tone and Harris' G-Star

ANI-F-VX
Plug-In ANI Encoder for Vertex Radios

- Portables supported: VX-350,VX-410, VX-420, VX-600, VX-800, VX-820, VX-900, VX-920
- Mobiles supported: VX-2100, VX-2200, VX-4000, VX-4100, VX-4200, VX-5500, VX-6000
- Requires Midian's KL-3 and VPI-1 for programming
- Supports Motorola's MDC-1200, Kenwood's Fleetsync, DTMF, 5-Tone and Harris' G-Star

TS-120
Plug-In ANI Encoder

Midian's TS-120 is a multi-format ANI encoder and Emergency ANI encoder that is available to plug into Kenwood, Motorola and Vertex radios. Plug-in versions are in development for HYT, Icom and Tait radios. The TS-120 series supports ANI and ENI in Motorola's MDC-1200, Kenwood's FleetSync, Harris' G-Star, DTMF and 5-Tone (all formats).

ANI-F Series
Automatic Number Identification

Midian's ANI-F series encodes ANI and Emergency ANI in Motorola's MDC-1200, Kenwood's FleetSync, DTMF, 5-Tone (all formats) and Harris' G-Star. The ANI-F also supports paging in POCSAG and 2-Tone (all formats) and the encoding of Emergency Alert Tones. ANI modules send a unique ID when keyed to identify which field radio is transmitting. This is used to identify system abusers, accurately identify emergency conditions and allow dispatchers to know who he or she is talking to and to assign calls fairly. Common users of ANI systems are Public Safety and Fleets (i.e. Taxi, Towing, Buses).

- Sends ANI and Emergency ANI
- Supports the following formats:
  - Motorola's MDC-1200
  - Kenwood's FleetSync
  - DTMF
  - 5-Tone
  - Harris' G-Star (aka GE-Star)
  - Emergency Alert and Custom Tones
- Leading ANI, Trailing ANI or Both
- Trunking Compatible (most models)
- Requires Midian's KL-3 programmer
- Dimensions: 0.73" L x 0.82 W x 0.16 H

Plug-in modules of the ANI-F are available for Icom, Kenwood and Vertex. See page 15.

ADD Series
ANI & Emergency ANI Display Decoder

Midian's ADD multi-format ANI display decoders work with Midian's ANI-F or an ANI equipped radio to enable the dispatcher to monitor fleet communications to identify system abusers and emergency conditions. The ADD can decode and display ANI and Emergency ANI in DTMF, 5-Tone (all formats), Harris' G-Star, Motorola's MDC-1200 or Kenwood's FleetSync. The ADD-MF can decode and display ANI and ENI simultaneously in all of the above formats for interoperability. The large LED display makes it easy to view incoming ID's.

- Scroll through the last 6 ID's
- Emergency ANI alert
- Format digit for identifying the signaling format
- Infrared remote controller for scrolling the display and silencing alert tones
- Requires Midian's KL-3 programmer and KL-3 Option A
- Serial output option for Moducom and Orbacom consoles

ADD-100: DTMF
ADD-200: 5-Tone
ADD-400: Harris' G-Star (aka GE-Star)
ADD-500: Motorola's MDC-1200
ADD-600: Kenwood's FleetSync
ADD-MF: Multi-Format Decoder

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Midian's DDU and CAD series products work with Midian's ANI-F or an ANI equipped radio to display ANI and Emergency ANI to identify which field unit is being keyed. This enables the dispatcher to determine who keyed a radio, identify system abusers and take the necessary action to stop the behavior or to accurately identify which field radio has an emergency condition. When used with Midian's UED series encoders and decoders or a radio with DTMF or 5-Tone signaling, the DDU-100/200 and CAD-100/200 can display DTMF or 5-Tone ANI and ENI, but can also encode to Midian's UED for selective calling, Radio Kill and Spy. Common users of radio dispatch encoders and decoders are Public Safety and Fleets (i.e. Taxi, Towing, Buses).

CAD Series
Computer-Based ANI Display Decoder

Midian's CAD series display decoders enable the dispatcher to monitor fleet communications, to identify emergency conditions and system abusers. The CAD can decode and display ANI and Emergency ANI in DTMF, 5-Tone, Midian's Kryptic, Harris' G-Star, Motorola's MDC-1200 or Kenwood's FleetSync. The CAD-MF can decode and display ANI and ENI simultaneously in all of the above formats (except Kryptic).

Coming Soon!

Encode capabilities in MDC-1200, FleetSync and G-Star

- Creates traffic log files that can be exported to Microsoft Excel or Access for reports
- View the entire day's traffic
- Displays ID, Alias, Time, Date and Statuses
- Audible and visual indications for Emergency conditions

CAD-100: DTMF (encode & decode)
CAD-200: 5-Tone (encode & decode)
CAD-300: Midian's Kryptic (encode & decode)
CAD-400: Harris' G-Star (encode & decode)
CAD-500: Motorola's MDC-1200 (encode & decode)
CAD-600: Kenwood's FleetSync (encode & decode)
CAD-MF: Multi-Format Decoder (decode only)

DDU Series
Desktop Dispatch Unit/Local Remote Controllers

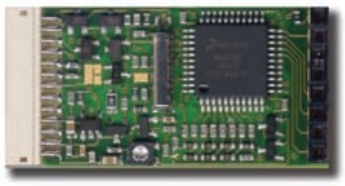
Desktop Display Decoder: Midian's DDU will decode and display incoming ANI's and Emergency ANI's to provide the dispatcher with the radio user's identity. This assists in correctly identifying users, stopping system abuse or to identifying users in distress.

- Decodes and displays ANI and Emergency ANI
- Alias database supports up to 135 user names
- 2-line LCD display shows ANI/ENI and Alias
- 10 number ANI memory recall with scroll buttons
- Repeater access control mode employing user ID validation

DDU-100: DTMF (encode & decode)
DDU-200: 5-Tone (encode & decode)
DDU-300: Midian's Kryptic (encode & decode)
DDU-400: Harris' G-Star (decode only)
DDU-500: Motorola's MDC-1200 (decode only)
DDU-600: Kenwood's FleetSync (decode only)

Multi-Format Encoders & Decoders

Midian's UED series decodes, dials and sends ANI in DTMF, 5-Tone, 2-Tone or Pulse Tone (1500 & 2805 Hz). Common uses for these products include selective calling and ANI for fleet management, HEAR System encode and decode for ambulances and hospitals, fire station alerting and remotely controlling equipment and storm warning sirens. The UED series programs using Midian's KL-3.

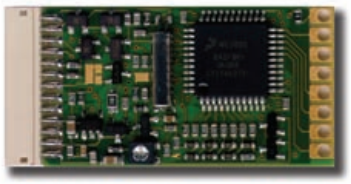


UED-1B
Multi-Format Encoder & Decoder

- Decode up to 3 different sequences
- Dial encoding from an optional keypad with a 10 number memory dial
- ANI and Emergency ANI encode
- Transpond upon decoding of the first sequence
- Momentary and latched outputs
- Supports Radio Kill and Spy features for fleet management
- Dimensions: 1.7" L x 0.84" W x 0.35" H

UE-1
Multi-Format Encoder

- Dial encoding from a keypad with a 10 number memory dial
- Add Midian's Keypad Option D for dialing
- ANI and Emergency ANI encode
- Dimensions: 1.38" L x 0.85" W x 0.34" H



UD-1B
Multi-Format Decoder

- Decode up to 3 different sequences
- ANI and Emergency ANI encode
- Transpond upon decoding of the first sequence
- Momentary and latched outputs
- Supports Radio Kill and Spy features for fleet management
- Dimensions: 1.7" L x 0.84" W x 0.23" H

UD-1B-DMH
Multi-Format Decoder

- Same features as UD-1B above
- Metal dashmount enclosure

UED-1B-DMV & UED-1B-BEZEL
Multi-Format Encoder & Decoder

- Same features as UED-1B above
- DMV is in a metal dashmount enclosure with backlit keypad
- Bezel can be mounted to a rack, panel or console

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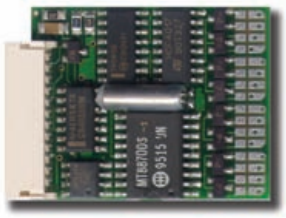
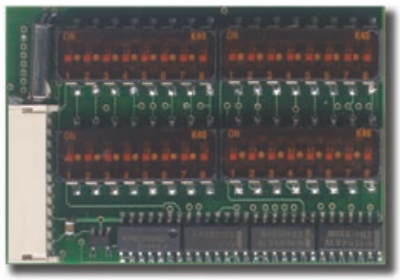
TTD-3
DTMF Decoder

- 1-4 digit DTMF decoder with transpond
- Jumper programmable
- Decodes all 16 DTMF tone pairs (0-9, *, #, A-D)
- Invalid digit reset
- Momentary and latched outputs
- Dimensions: 1.35” L x 1.0” W x 0.25” H



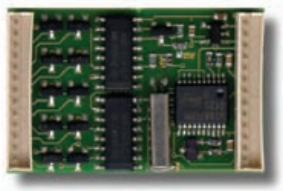
TTD-4
DTMF Decoder

- 1-8 digit DTMF decoder with transpond
- Dipswitch programmable
- Decodes all 16 DTMF tone pairs (0-9, *, #, A-D)
- Invalid digit reset & group call
- Momentary and latched outputs
- Dimensions: 2.0” L x 1.35” W x 0.29” H



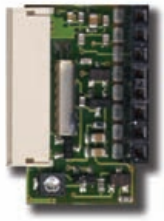
TTD-5
DTMF Decoder

- Single digit DTMF decoder
- Decodes all 16 DTMF tone pairs (0-9, *, #, A-D)
- 16 momentary or latched outputs
- Dimensions: 1.35” L x 0.85” W x 0.25” H



TT-7
DTMF Encoder

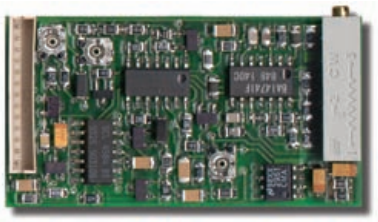
- 12 or 16 digit DTMF encoder
- Keypad Option D (12 button keypad) for 0-9, *, #
- Keypad Option F (16 button keypad) for 0-9, *, #, A-D
- Automatic PTT when dialing with sidetone
- Dimensions: 0.7” L x 1.04” W x 0.37” H



TTE-7
DTMF Encoder

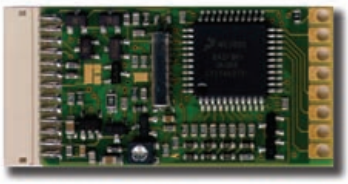
- 12 digit DTMF encoder
- Supports 0-9, *, #
- Automatic PTT when dialing with sidetone
- Dimensions: 2.4” L x 1.9” W x 0.39” H

Burst Tone Encoders & Decoders



BTD-1
Tunable Burst Tone Decoder

- Version A: 1200-2600 Hz
- Version B: 700-3000 Hz
- Adjustable decode time or continuous decode
- Momentary and latched outputs
- Dimensions: 1.87" L x 1.0" W x 0.34" H



BTD-2
Programmable Burst Tone Decoder

- Programmable for any burst tone frequency from 300 – 3000 Hz
- Momentary and latched outputs with programmable hang timer
- Requires Midian's KL-3 programmer
- MOD-1272 Option: Mutes incoming Motorola MDC-1200 ANI packets
- Dimensions: 1.38" L x 0.85" W x 0.34" H

ANI-F
Programmable Burst Tone Encoder

- Programmable from 300 – 3600 Hz
- 2-Line binary input to select 4 different tones
- Programmable or continuous encode time
- Requires Midian's KL-3 programmer
- Dimensions: 0.73" L x 0.82 W x 0.16 H

BTE-3-DMH
Programmable Burst Tone Encoder

- Programmable from 300 – 3600 Hz
- Encode 32 different burst tone frequencies
- 16 position switch with bank switch for 16 additional frequencies
- Requires Midian's KL-3 programmer

Notch Filter/Band Pass Filter

NFBF-1
Tunable Notch Filter/Band Pass Filter

- Notch Filter: The unit will remove an undesired tone while passing voice. Commonly used to notch 2175 Hz tone remote tones from voice recording systems.
- Band Pass Filter: The unit will pass the desired tone while removing all other tones.
- Version A: 1200 – 2600 Hz
- Version B: 700 – 3000 Hz
- Version C: 80 – 200 Hz
- Dimensions: 0.85" L x 0.78" W x 0.29" H

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TDS-1
CTCSS & DCS Encoder/Decoder

Midian's TDS-1 can be used to equip a repeater or a radio with CTCSS and DCS signaling. While most repeaters and radios come equipped with CTCSS and DCS signaling some are not equipped or do not support custom codes.

- Supports the 38 standard CTCSS tones, 13 split tones and custom CTCSS tones
- Supports any of the 512 (85 recommended) DCS codes (000 – 777)
- Encodes reverse burst for CTCSS or invert & shut-off code for DCS
- Can encode/decode up to 64 different CTCSS/DCS tones using 6-line binary
- Requires Midian's KL-3 programmer
- Dimensions: 1.8" L x 0.84" W x 0.22" H

TDS-1-DMH
CTCSS & DCS Encoder/Decoder

Midian's TDS-1-DMH can be used as a test instrument to encode and decode CTCSS and DCS signaling. Most service monitors support sub-audible signaling, but older service monitors may not support CTCSS and DCS or custom codes.

- Supports the 38 standard CTCSS tones, 13 split tones and custom CTCSS tones
- Supports any of the 512 (85 recommended) DCS codes (000 – 777)
- Encodes reverse burst for CTCSS or invert & shut-off code for DCS
- Encode 32 different CTCSS and DCS codes
- 16 position switch with bank switch for 16 additional codes
- Requires Midian's KL-3 programmer

TDS-3
CTCSS & DCS Encoder

Midian's TDS-3 is used to equip a repeater or a radio with CTCSS and DCS encoding. The TDS-3 can add CTCSS, DCS and custom codes to a radio or repeater.

- Supports the 38 standard CTCSS tones, 13 split tones and custom CTCSS tones
- Supports any of the 512 (85 recommended) DCS codes (000 – 777)
- Encodes reverse burst for CTCSS or invert & shut-off code for DCS
- Can encode up to 4 different CTCSS/DCS codes using 2-line binary
- Requires Midian's KL-3 programmer
- Dimensions: 0.73" L x 0.82 W x 0.16 H

Coming Soon!

PR-10
Paging Regenerator and Simplex Repeater

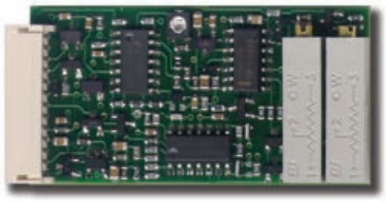
Paging Regenerator with Voice: The PR-10 decodes and records a paging sequence in 2-Tone, DTMF or 5-Tone and then records the voice page following the paging sequence. When COR drops the PR-10 regenerates the paging sequence followed by the recorded voice page.

Simplex Repeater Maker: When the PR-10 sees a COR indication from the radio it records the incoming voice or tone and voice (up to 3 minutes). When the COR indication drops the PR-10 keys the radio and retransmits the recorded audio message.

PR-1
Paging Tone Regenerator

The PR-1 paging tone regenerator will decode a paging sequence and then regenerate the same tones (predictive & non-predictive modes) or a different set of tones (predictive mode only) immediately upon decode or 0-9 seconds after a loss of carrier. This allows for regenerating pages into dead spots.

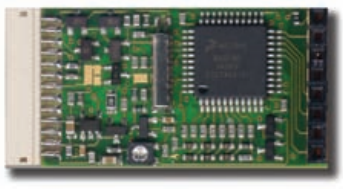
- Formats include **DTMF, 5-Tone** and **2-Tone**
- **Predictive Mode:** Decode up to 3 specific paging sequences and then regenerate the same tones or a different set of tones
- **Non-Predictive Mode:** Decode and regenerate unlimited 2-Tone, 5-Tone or DTMF paging sequences
- Requires Midian's KL-3 programmer
- Dimensions: 1.7" L x 0.84" W x 0.37" H



MTSD-3
2-Tone Paging Decoder

2-Tone decoders are used for fire station alerting & storm warning sirens. Two MTSD-3 modules may be "anded" together to decode Motorola QuickCall 1 & AvCall pages (2 + 2).

- Programmed using on board tuning pots
- Momentary & latched outputs
- Version A: 280 – 1600 Hz
- Version B: 500 – 2800 Hz
- Dimensions: 1.9" L x 0.9" W x 0.3" H



RT-2
2-Tone Paging Decoder

- Decodes up to three 2-Tone sequences
- Frequencies are programmable from 300-3000 Hz
- Momentary & latched outputs
- Programmable using Midian's KL-3 or Keypad Option D
- Dimensions: 1.9" L x 0.9" W x 0.3" H

On-Site Paging Applications

Hospitals & Nursing Homes – Schools & Universities – Airports – Security – Factories

Retail Stores – Buildings & Warehouses – Pickup & Delivery Services

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DPT Series
Dial Access Paging Terminal

Midian's DPT series dial access paging terminals connect between a PBX or a regular landline and a base station radio or repeater. This enables a telephone caller to dial into the paging terminal and page users in POCSAG, 2-Tone, DTMF and 5-Tone. There are 100 available pre-canned messages for use with POCSAG paging and the Talk-Back paging feature allows paged portable and mobile radios to talk back to the caller.

Shown: DPT-2

- Supports up to 835 subscribers
- Tone only or Tone and Voice paging
- Delinquent Account Disable/Re-enable
- DPT-1: 19" rack mountable
- DPT-2: Desktop box
- Requires Midian's KL-3 programmer and KL-3 Option A

PDE-1
Paging & Dialing Encoder/Local Remote Controller

Paging & Dialing Encoder: The PDE-1 encodes multiple paging formats including POCSAG, 2-Tone (tone only or tone & voice), DTMF, 5-Tone and Pulse Tone.

- 10 number memory dial
- Alias database supports up to 155 users with autodial
- Simultaneously supports multiple paging/signaling formats
- 2-line LCD display shows Pager Code and Alias
- POCSAG supports 512, 1200 & 2400 baud with "canned" alpha messages

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CAD-POCSAG
Computer Based POCSAG Paging Encoder

Midian's CAD-POCSAG is an easy to use and cost-effective alphanumeric paging encoder. Simply select a pager or multiple pagers, type an alphanumeric message and click send. The page will be sent to the selected pager(s). The CAD-POCSAG can also poll a predetermined network folder for a text file and automatically generate a POCSAG message from the text file. The CAD modem box connects between a PC and a true FM base station radio.

- Call single or multiple pagers
- Alphanumeric POCSAG paging
- Supports 512, 1200 or 2400 baud
- Automated POCSAG message generation

STI Series
Standard Radio-Telephone Interconnect

Shown: STI-2

Midian's STI series of phone patches connect between a telephone line and a base station radio or repeater to allow mobile and portable radio users to make and receive telephone calls. The STI can also be used with Midian's TRA for use as a phone-line extender.

- Supports up to 100 users
- Simplex, Half Duplex and Full Duplex operation
- Toll Restrictions, Call Limit Timers and Overrides
- Delinquent Account Disable/Re-enable
- STI-1: 19" rack mountable
- STI-2: Desktop box
- Requires Midian's KL-3 programmer and KL-3 Option A
- STI Option A: Control box for HF SSB

DTI Series
Deluxe Radio-Telephone Interconnect

Shown: DTI-1

In addition to acting as a phone patch or a phone-line extender, Midian's DTI series can act as a repeater maker by connecting it between two mobile radios to form a repeater. The DTI supports CTCSS/DCS validation with DTMF ANI connect and disconnect. A voice scrambler option is available to allow systems with radio encryption to talk over the air in secure mode with the telephone caller.

- Supports up to 350 users
- Simplex, Half Duplex and Full Duplex operation
- ANI validation for repeater access
- DTI-1: 19" rack mountable
- DTI-2: Desktop box
- Requires Midian's KL-3 programmer and KL-3 Option A

Telephone to Radio Adaptor

TRA
Telephone to Radio Adaptor

Telephone Line Extender: Midian's TRA can be connected between a regular telephone, a cordless phone or an unused extension with a phone patch such as Midian's DTI or STI to extend a phone line into remote areas or to vehicles with no landline or cellular coverage. The phone patch connects between a regular landline and a two-way radio or repeater. At the remote site a second two-way radio would be connected to the TRA and a regular telephone, answering machine, fax or low speed modem. The remote site can then make and receive telephone calls.

Local Remote Controller: The TRA can be connected between an unused extension on a KSU office phone system and a base station radio. An office worker may then communicate with the field radios simply by picking up any telephone in the building and accessing the dedicated extension. Field units may also ring the extension by DTMF dialing or fast multi-clicking of the PTT or using DTMF to speak with someone in the office. The TRA also supports selective calling of field units and paging.

IS-1
Interoperability Switch / Cross-Band Repeater Maker

Midian Electronics' IS-1 is an interoperability switch or a cross-band repeater maker for allowing 2 radio systems on different channels or different bands to communicate with one another. For example a UHF radio and an HF SSB radio can interoperate or a VHF radio can interoperate with a UHF P25 radio. This is ideal for interagency cooperation in emergency situations such as search & rescue, emergency relief, hostage situations, etc.

When the IS-1 sees COR or VOX from radio 1, the IS-1 will give a PTT output to radio 2 and pass the audio from radio 1 to radio 2 and vice versa. The IS-1 can be powered by a 9 Volt battery up to 40 hours, or can get the power from an external source such as a mobile radio or from an optional wall power adaptor. A monitor output is available for monitoring the radio traffic or connecting to a voice recorder.

Available options include:

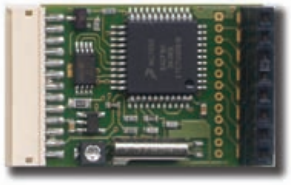
- **IS-1 Option A:** Preconfigured cables for simple installation for some radios
- **IS-1 Option B:** Optional wall adaptor (110-220 VAC)
- **IS-1 Option C:** Optional DTMF, 5-Tone, Pulse Tone or 2-Tone decoder for remote enable/disable

RM-1
Repeater Maker

Midian's RM-1 connects between 2 two-way radios to make them into a cost-effective repeater. This product is ideal for use as a permanent low cost repeater by public safety and amateur radio operators or for use as a temporary repeater for search and rescue operations. The RM-1 also incorporates a DTMF decoder to provide for authorized access and/or closure of the repeater if desired. Two RM-1 modules can be used to create a cross-band repeater.

- Includes Morse Code station identification (2 selectable messages)
- Programmable hang time and ID repeat time
- Programmable using Midian's KL-3 or the keypad
- Dimensions: 2.4" L x 1.9" W x 0.39" H

ID-1
Morse Code Station Identifier

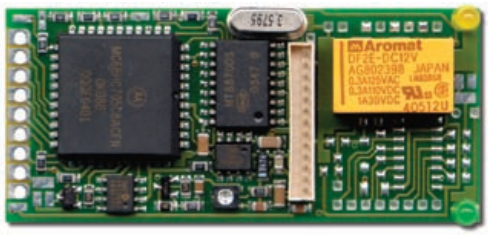


The ID-1 is a programmable CW ID module and is ideal for use in Public Safety, amateur radio and commercial applications including repeaters and base stations.

- Includes Morse Code station identification (2 selectable messages)
- Programmable hang time
- Programmable ID repeat time and speed
- Programmable using Midian's KL-3 or Keypad Option D
- Dimensions: 1.38" L x 0.85" W x 0.34" H

Remote Monitoring & Control Applications

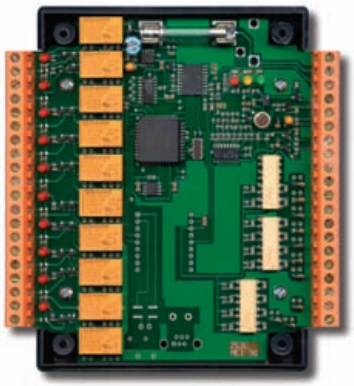
Pump & Well Control – Alarm Systems – Ventilation – Irrigation Systems – Lighting Control



RD-1
Remote Monitoring & Control

Midian's RD-1 can receive DTMF commands from a DTMF equipped two-way radio, Midian's RC-10, RD-10 or another RD-1. The RD-1 can also transpond and encode alarm conditions to an RC-10.

- 1 relay output (Dual form C rated for 0.3 Amp at 120 VAC)
- Momentary or latched output can be turned on until reset or for a period of time (up to 24 hours)
- Requires Midian's KL-3
- Dimensions: 2.5" L x 1.11" W x .37" H



RD-10
Remote Monitoring & Control

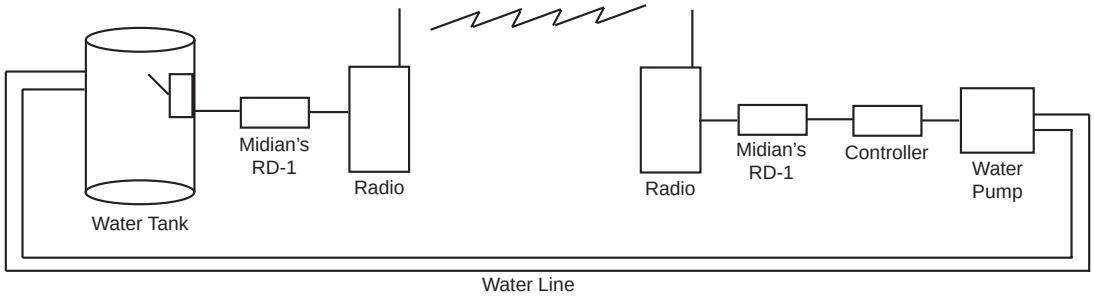
Midian's RD-10 can receive DTMF commands from a DTMF equipped two-way radio, Midian's RC-10, RD-1 or another RD-10. The RD-10 can transpond and encode alarm conditions to an RC-10.

- 10 relay outputs (Dual form C rated for 0.3 Amp at 120 VAC)
- 10 opto-isolated inputs for status monitoring
- Momentary or latched outputs can be turned on until reset or for a period of time (up to 24 hours)
- Requires Midian's KL-3

RC-10
Remote Monitoring & Control Console

The RC-10 monitors and controls up to 10 RD-1 units or a single RD-10. The RC-10 can turn the outputs of the RD-1 & RD-10 on and off, as well as receive and acknowledge alarm status conditions.

- Polling of remote sites
- Alarm indicator LEDs with audible tone
- Power, PTT and channel busy LED's
- Requires Midian's KL-3



AE-1
Alarm Monitoring Encoder

Midian's AE-1 has 8 status inputs for reporting alarm conditions. Each input has a high and low indication for sending 2 status messages per input. This is ideal for monitoring remote locations via two-way radio for intrusion detection, equipment failures, fire alarms, tank overflows, etc.

- Supports signaling in DTMF, 5-Tone and 2-Tone
- Report alarm conditions to a tone pager or an ANI display decoder such as Midian's CAD, ADD or DDU series
- Requires Midian's KL-3 programmer
- Dimensions: 1.3" L x 0.85" W x .0.23" H

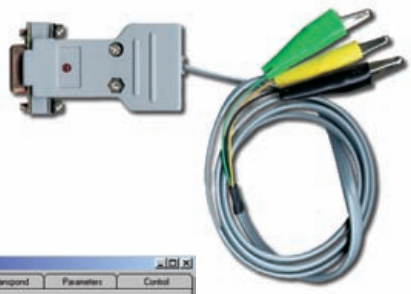
ANI-F
POCSAG Paging Encoder

The ANI-F (POCSAG) has 3 status inputs for reporting up to 6 alarm conditions. Each input has a high and low status for sending 2 unique alphanumeric POCSAG pages via a two-way radio. The page can be transmitted to a numeric or alphanumeric pager to alert the user to the alarm. Applications include intrusion alarms, fire alarm reporting, tank overflow warnings, report equipment failures, etc.

- Supports 512, 1200 and 2400 baud
- 3 separate paging addresses, each with 2 programmable messages
- Requires Midian's KL-3 programmer
- Dimensions: 0.73" L x 0.82 W x 0.16 H

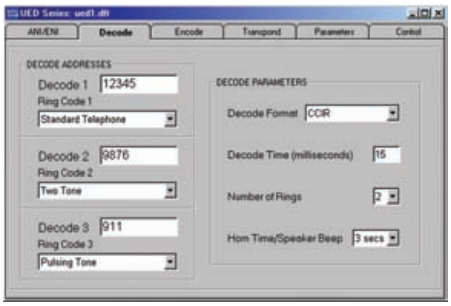
Programmers

KL-3
Midian Product Programmer



Midian's KL-3 is a cable and software package for programming most of Midian's products. Depending on the product, additional programming items may be necessary (see below).

- KL-3 Option A: Necessary for DTI, STI, DPT, ADD, TTC series
- IPI-1: Necessary for Midian's IC-1 series plug in products for Icom radios
- KPI-1: Necessary for Midian's KW-1 series plug in products for Kenwood radios
- VPI-1: Necessary for Midian's plug in products for Vertex radios



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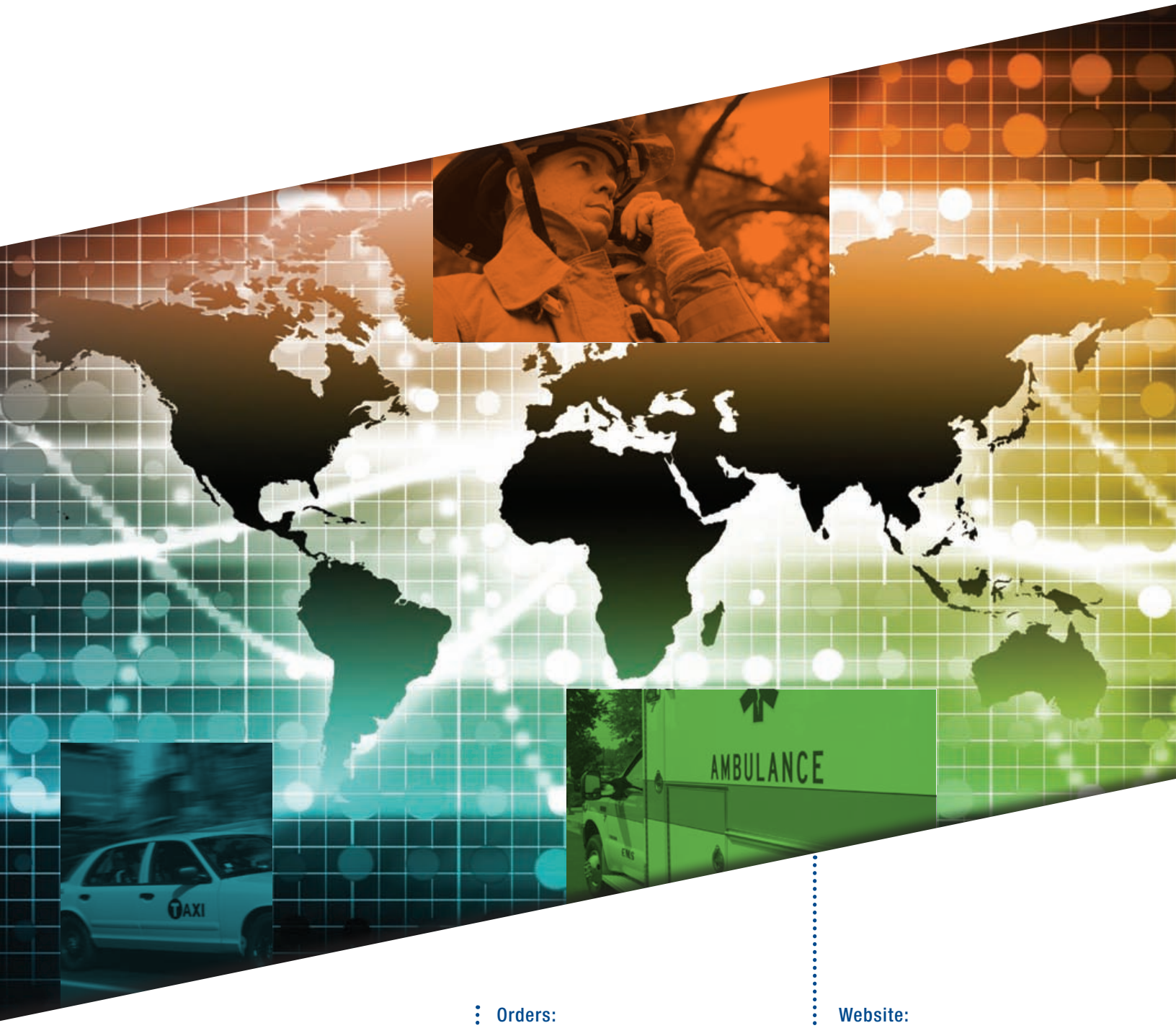

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