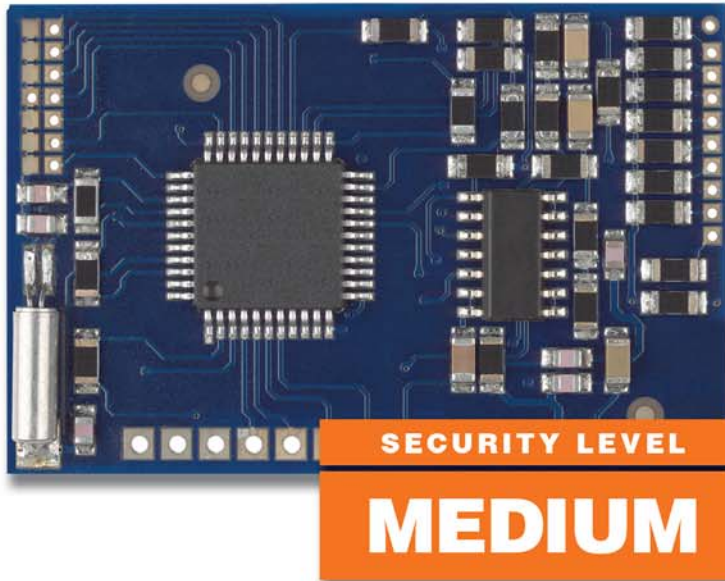


LMR SCRAMBLER

SC20-455

TRANSCRIPT[®]
INTERNATIONAL

TRANSCRIPT SC20-455



The SC20-455 scrambler offers medium level security for many brands and models of high frequency (HF) single sideband (SSB) radios. Transcript has designed the SC20-455's operating parameters to optimize performance for the HF SSB channel. The SC20-455 is a standard HF SSB scrambler for many military applications around the world, including the New Iraqi Army.

This voice security module consists of an after-market add-on circuit board containing software and components. When installed, it is fully contained within the radio — with no external cabling or wiring required. The module is powered by the radio or its battery, and operates from 6 to 15 V DC at less than 10mA current. Suitable for rugged military use, this module operates at temperatures from -20° to + 60° centigrade.

The SC20-455 secures voice communications using rolling code frequency inversion, with the module changing frequency approximately 500 times per second. Secure communications from enemies and other unwanted eavesdroppers is ensured, as the module changes frequencies in a pseudo-random fashion and does not cycle the frequency pattern in less than one hour.

The SC20-455 allows the user to select synchronization and scrambler codes independently. All users may use the same scramble code; but

if desired, user groups may also be prevented from talking with each other. The module features a configurable transmit delay for system optimization; it also mutes the received signaling and synchronization data. Audio recovery and voice recognition quality are excellent.

Automatic Coded / Clear Operation

The SC20-455 automatically switches between clear and secure mode based upon the signals received. It also allows for the selection of clear or secure transmission via toggle or momentary switches. An optional on / off indicator is available.

Medium Level Security

The SC20-455 is a real time multiple audio frequency shifting scrambler under full digital control operating within the normal bandwidth of the radio. During operation, the code frequency changes continuously. Additional uniqueness for greater security is designed into the module by using variable synchronization patterns.

Field Programmable

Each scrambler is equipped with 128 code groups, with 16 individual codes per group. These are easily selected using physical jumpers or dip switches, for a total of 2,048 codes per scrambler system. Users can select from 16 individual codes by adding an optional switch to the radio.



Easy to Install and Program

The SC20-455 is a complete scrambling encoder / decoder. Installation can be easily performed by any qualified service technician. Code programming does not require any special equipment.

Technical Support

Transcript scramblers are designed with features that adapt to the wide variety of voltage and signal levels found in two way radio equipment. Technical support is available to assist with installation and technical questions.