ESN REF: HH-ACC-045(B)

ESN WIRED RSM – VIA USB

- The RSM device is engineered to meet the Home Office requirement for ESN and the design is such that it replicates user familiarity of Tetra terminals
- Design is based on moulded halves sealed to IP67 standard using piston seal arrangement
- Different surface finish zones aid blind find of controls when used with or without gloves and is aesthetically engineered to promote a robust design
- All buttons use metal snap domes and have been carefully selected for reliability for more than 2 million actuations and a Crisp Tactile Feel
- Provision for lanyard attachment is incorporated with design
- Battery operation of in excess 15 hours under heavy audio traffic usage
- Wired/wireless version both have 'voice annunciation' capability. This can be useful for the user to hear 'Talk Group' selection, whisper mode on/off etc
- The popular Klickfast fixing or alternative makes it easy for the attachment to uniforms
- Design conceals a pressure vent to manage the internal pressure of RSM enclosure – supporting long service life, increasing reliability, and preventing deformations that could cause component failure
- Speaker and microphone ports are fitted with acoustic vents for protection from environmental contaminants that could impair their effectiveness. The acoustically transparent vents are engineered from a special 3M material that provides protection from dirt, dust, oils, perspiration and water with excellent sound transmission
- The side buttons are protected/ isolated from each other with a ribbed design which makes it easier to find and activate

SONIC COMMUNICATIONS
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ESN WIRED RSM – VIA USB

This RSM audio solution is based around a high quality digital stereo audio codec with USB interface. Microphone audio is presented to the Analogue to Digital (ATD) input and transferred out as data to the USB C connector of ESN device.

Data coming back from the ESN device is presented to the Digital to Analogue (DAC) input of audio codec. The signal then comes out of the codec as stereo audio, this stereo audio is then amplified by a class-AB power amplifier before being presented to the internal loud speaker

The audio codec also has 3 button controlled interrupt pins – Human Interface Device (HID). The EEI on ESN device interprets what function should be performed i.e. PTT, volume Up, volume Down etc.

Features:

- Talk Group Selector with volume control
- Large PTT Button
- Emergency Key
- 2x Un-Assigned Button Function
- Superb receive audio quality
- High quality microphone with immunity from GSM/
- TDMA noise.

Mechanical Characteristics

Weight	210 grams
Operating Temperature	-30 °C to +70 °C
Cable USB C	Polyurethane, colour black
Cable Pull	30 lbs
Moulding :	Black ABS
Size:	81x65.5x32 mm

USB C Coiled Cord (5 mm in Black polyurethane)

Electrical Characteristics (Microphone)

Type	Electret Noise Cancelling
Sensitivity	-44dB +/- 2dB @ 1KHz
Frequency Response	100 to 5 KHz (-8dB)
Operating Voltage	1.0V to 10V
Impedance	2K2 ohms

Electrical Characteristics (Speaker)

Type: Mylar Moving Coil
Impedance: 4 ohms @ 1500 Hz
Sensitivity (1kHz): 95 +/- 3 db
Max output: 2.5 W
Frequency Response: 100 to 5.4KHz
SNR: 104 dB

Electronic:

- Electronic Interface with USB Interface:
  - With Full-Speed Transceivers
  - Fully Compliant with USB 2.0 Specification
  - Certified by USB-IF
  - 16 Bit Delta-Sigma ADC and DAC
- Sampling Rate:
  - DAC: 32, 44.1, 48 KHz
  - ADC: 8, 11.025, 16, 22.05, 32, 44.1, 48 KHz
  - Antialiasing filtering
- Class AB audio amplifier to drive Loud Speaker.
- Power: 3.3V DC
- Standby Current: 250 μA
- ADC,DAC mode + Vol Max Current: 10 mA
- Power Amp Output: 2.4 Watts

Battery Type: 1000 mA/Hr Li-ion
Depth of Charge: 80% after 500 charge cycles
Battery Life: 1000 cycles (If properly charged/ discharged)

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