

Secure Communication for a Safer World



D856-BM BlackMic

Real Digital Voice Universal Remote Speaker Microphone



- **Digital Voice Over HF 600/1200/2400 bps vocoder's rates**
- **Autobaud**
- **AES-256 Encryption Algorithm**
- **16 user codes**
- **Cost-effective**
- **Automode**
- **Upgradable**
- **Customer Encryption Feature**

Secure voice communications are critical to protecting private information and confidential conversations from casual eavesdroppers, the public, business competitors, criminals, terrorists and enemies.

Add-on voice security units can be used to keep confidential information away from unwanted listeners to protect businesses, property and personnel.

Perhaps their greatest value is in protecting lives – those of soldiers, police, public safety, government workers, employees and our citizens who count on us to protect them.

Filcom's real-life digital encryption unit the **D856-BM BlackMic** includes all elements of typical digital encryption system: a digital speech coder (vocoder) which transforms the speech into a digital bit stream, a digital encryption & decryption block to encode and decode the bit stream, and a modem to transmit and receive the encrypted digital information

The **D856-BM BlackMic** applies a complex adaptive mechanism, so it is especially perfect on HF channels where signal propagation is determined by the fact that it's repeatedly reflected from the ionosphere and the earth surface and significant changes of propagation conditions depending on the geographical location, frequency, time of day, season, solar activity, and other circumstances.

The user of the **D856-BM BlackMic** can work with one from **3 (three! – 600, 1200 or 2400 bps)** rates of built-in vocoder depending on the current propagating conditions.

The **D856-BM BlackMic** automatically detects and processes the incoming signal with different bps rates (Autobaud).

The **D856-BM BlackMic** automatically detects and processes the incoming signal clear or encrypted (Automode).

The **D856-BM BlackMic** provides true digital encrypted voice privacy with crystal-clear audio quality that is fully compatible with HF, VHF, UHF communications channels.

The **D856-BM BlackMic** has the ability to be upgraded with any future improvements via upgrade file.

The programming and key loading is occurred via PC.

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Specifications for the D856-BM BlackMic

General

Installation	It connects with an Accessory Connector of a Radio
Operating Temperature	-30° to +60°C
Supply Voltage	+5...+36 VDC

Technical

Bandwidth	400 to 2600 Hz
Channel modulation	8PSK
Subcarrier frequency	1350 Hz
Interleaver	360 ms
Compensation of frequency drift	± 30 Hz, 1 Hz/sec
Compensation of symbol speed mistiming	± 100*10 ⁻⁶
Compensation of multipath/fading	0...5 ms, 3...8 Hz
Receive – transmit delay, not more	1.5 sec
Vocoder	600/1200/2400 bps
Modes	Encryption/Clear; Autobaud; Automode
Working mode	Simplex
Speaker	Built-In 1W

Security

Encryption Algorithm	AES256
Length of key	256 bit
Max number of user codes	16
Selection of user codes	Manually
External Algorithm	Customer Encryption

Interfaces

Input Audio	600 ohm balanced, -35 to +10 dBm
Output Audio	Balanced, -35 to +10 dBm adjustable into 600 ohm load
PTT line	Open collector to ground (50 volts, 50 mA)
Connector	9 pin circular

Options

Mandatory	Adapter cable for concrete type of a Radio
Non-Mandatory	Programming USB-RS232 cable