



ECM702 Multi-Channel Electronic Countermeasure Unit

- ❑ Covers all GSM(2G), UMTS(3G) and LTE(4G) frequencies
- ❑ WIFI at 2.4Ghz and /or Bluetooth
- ❑ Transmits up to 6 channels simultaneously
- ❑ Adjustable power into antennas from -40 to +30dBm/channel
- ❑ All outputs connected to a special antenna array mounted in the lid . Each antenna provides 6dBi of gain
- ❑ Lithium Polymer battery with status indicator.
- ❑ External power option.
- ❑ Light weight –less than 2.7kg

Overview

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The ECM702 is a small portable unit designed to be used to inhibit the use or contact with, mobile phones, within a specific area. The unit can operate using its internal battery for between 3-4 hours or for longer periods through the use of an external 12VDC power source. Six independent countermeasure transmitters are connected to a special antenna array in the lid. Each directional panel antenna provides a gain of approximately 6dBi or better.

Each module is programmed via a special app running on a Windows based PC. Once the desired parameters have been set they are stored within each unit. The user now simply powers up the unit and all transmitters will function according to the options that have been set.

The firmware within each unit can be upgraded via its USB port remotely. The application software also contains a program which facilitates remote diagnosis of each unit via the internet which obviates the need to return the unit when programming issue occurs.

Operational modes and functions



The operational parameters for the unit are programmed in using the special Windows. The two integral countermeasure units are programmed separately via the USB sockets on the front panel. When the PC is plugged into each unit the relevant operational options will be displayed.

Within each band there is a wide range of frequency options allowing the unit to be used in almost any country. The output power for each frequency band can be independently set as well as the sweep rate. This allows the unit to be customised for any environment and application. Individual transmitters can be disabled if required.

On the enhanced screen the user can set passwords and restrict access only to a single master PC if required.

The App has a small database of national variations so when the specific country is selected the operators and frequencies allocations are displayed. The database can be enhanced on request.

To download the latest app and firmware revisions visit: www.pdaelectronics.com – skip intro and goto Secure Login Enter username: **ECM608** and for the password: **support** You will now have access to all the ECM608 documentation and software

Specifications

Frequencies and Output power

Transmitter Serial	Transmitter Description	Frequency Range (MHz)	Max Output Power (mW)	Gain (dBi) (Antenna)	EIRP (watts)
1 - USB1	GSM / UTM S low	925 - 960	1300	3	2.6
2 - USB1	GSM / LTE	1805 - 1876	1300	5	4.11
3 - USB1	UTMS / WI-FI	2110 - 2160	1300	6	5.2
4 - USB2	LTE 700 / 800	791- 821	1300	3	2.6
5 - USB2	LTE 2600 / UTM S	2620 - 2690	1300	8	8.2
6 - USB2	WI-FI / Bluetooth	2400 - 2500	1300	7	6.52

Multi-Channel Blocking

Within each band the signal can be configured to counter different technologies. For instance the GSM900 signal can also counter UMTS900 by setting the sweep rate high. On the GSM1800 band, LTE1800 can be jammed as well by setting the sweep rate to Low. In both cases the GSM base station signal will be affected as well due to the wider sweep rate variances

National Cellular Variations.

The wide range of frequencies within each band allow different frequency allocations to catered for. For instance the ECM702 caters for GSM850 and GSM1900 as well LTE700 as used in the USA and South America. LTE800 and LTE2600 are the common frequency bands for Europe with some LTE1800 available in some countries. UMTS 850/ 1900 standards are also allowed for as well as the standard 900 and 2100 frequencies.

The antenna array and amplifiers however are tuned for specific frequencies for max performance. A different panel and amplifiers are required when US frequencies are being used. For this reason a special build would be required ECM702US. Please ask Sales for prices and lead times

WIFI

The ECM702 can provide a countermeasure signal over the whole WIFI range including Channel 14 (2.435GHz) which can be used by some WIFI bugs. The unit can also be set to specific bands or an individual channel.

Connectors:

- 2 x USB Micro connectors
- 1 x 2.1mm Power Jack socket (tip +ve)

Power

Internal: 1 x 12VDC 8Ah Lithium Polymer battery
Operational Life: Typically 4 hours on full power.

Operating range

The main factor affecting the range of the unit is the proximity and power of the base station / mast to which the phone is registered. Typical range would be approx. 50*metres in the direction of the antenna outputs

** The exact range depending on a variety of factors such distance to a relevant base station (Mast), its radiating power and local propagation conditions.*

Temperature

Range for normal operation: -10 to +50°C.
Unit incorporates forced air cooling so unit can operate with the lid closed

Physical

- Size: 241 x 190 x 108mm (External)
- Weight: 2.6kg (including the 8Ah battery)
- Case: HPX high performance resin

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