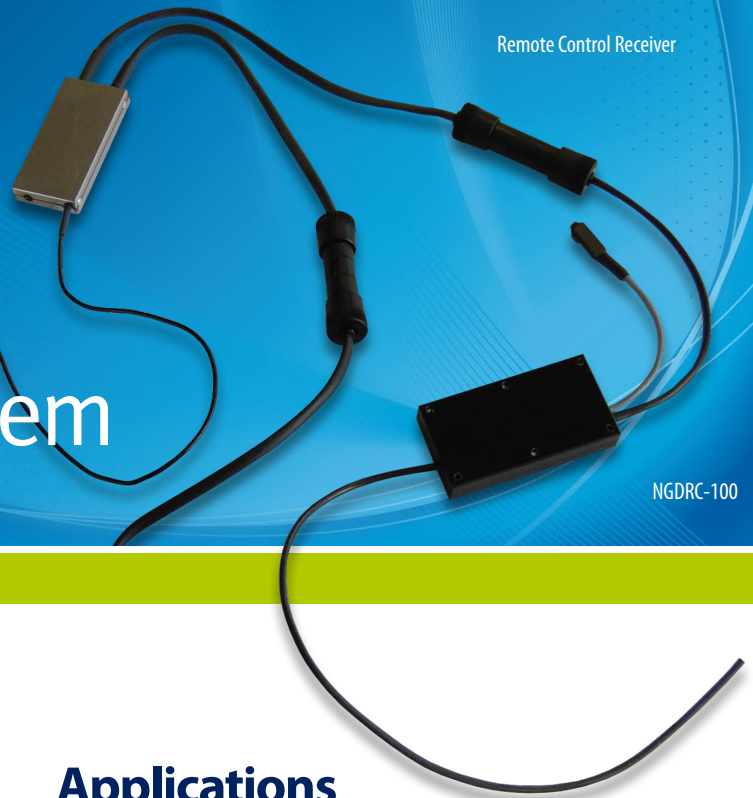


GEM NGDRC-100

Digital Remote Controlled Audio Transmission System

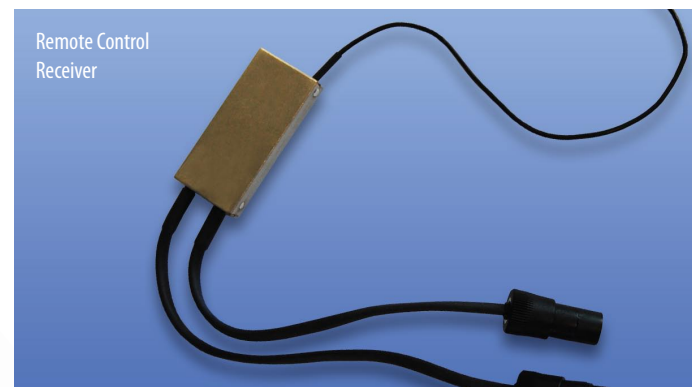


Features

- Stand alone, field-ready system
- Very small size of the transmitter
- Single-channel remote control activator
- Digitally encrypted remote transmission
- High sensitivity of the microphone
- Shrink wrap or metal enclosure
- Small communications receiver with built-in decoder
- Automatic gain control (AGC)

Applications

- Designed for hidden installations
- Ideal for vehicle & long-term applications
- Close protection monitoring
- Standard indoor and outdoor surveillance operations
- Homeland security
- Suited for use in SWAT & tactical task forces
- Temporary deployments



The GEM NGDRC-100 is a digital encrypted remote controlled audio transmission system. The digital transmitter with increased output power is designed to transmit acoustic data via radio channel with digital encoding.

Small dimensions allow the device to be concealed in various items. The NGDRC-100 transmitter is suitable for the most miniature types of camouflage, making it an indispensable intelligence gathering tool for nearly every scenario.

Only the high quality communications receiver, equipped with built-in decoder, can receive the signal transmitted from the NGDRC-100. GMSK modulation and digital encoding provide high level of protection from interception.

The NGDRC-100 is supplied with single-channel remote control activator & remote control receiver. The remote control receiver is designed in a small metal case with flexible external antenna, power supply and load leads. Each remote control receiver is equipped with its own unique digital code.

Technology

Transmitters of this type use GMSK modulation and digital encoding to guarantee protection of transmitted data. Only special receiver, equipped with relevant decoder, can receive signals from such transmitters. Any other receiver provides "white noise" reception only.

GMSK is a simple yet effective approach to digital modulation for wireless data transmission. GMSK has been adopted by many wireless data communication protocols. Key advantages include spectral efficiency, low phase distortion and coherence of the signal, it also improves noise immunity when demodulating. ■

Technical Specifications

Transmitter	
Modulation	GMSK
Codec	CVSD with encryption
Frequency control	SAW
Frequency (standard)	303.825, 315.00, 390.00, 418.00, 423.220, 433.420, 433.920MHz
Low frequency range	300 - 5500Hz
Output power	100mW
Power supply	3.5 - 6V DC
Current consumption	< 70mA @3.5V
Dimensions	42 x 17 x 7mm (shrink wrap) 44 x 23.5 x 8.3mm (metal enclosure)
Operating temperature range	0° to +45° C
Single-Channel Remote Control Activator	
Modulation	AT
Carrier frequency	144, 151 & 434MHz +/- 5MHz
Output power	300mW
Power supply voltage	6V
Current drain	Standby mode 1mA, Indication mode 40mA Transmission mode 165mA
Dimensions	114.5 x 42.2 x 15.7mm
Remote Control Receiver	
Power supply voltage	2.5 - 3.6V
Current drain at U = 3V	Standby mode (mean value) 220µA Operation (pulse value) 4mA Load current at U= 3V 100mA
Dimensions	38.8 x 18.7 x 5.5mm
Communications Receiver (ICOM IC-R6)	
Receive modes	FM, WFM, AM
Antenna connector	SMA (50Ω)
Power supply	2 x AA Battery, 4.5 - 6.3V DC with AC adapter
Dimensions	58(W) x 86(H) x 29.8(D)mm
(projections not included)	2 ⁹ / ₃₂ "(W) x 3 ³ / ₁₆ "(H) x 1 ³ / ₁₆ "(D)
Weight (approx.)	200g / 7.1oz (with supplied antenna and batteries)
Operating temperature range	-10° to +60° C (+14° to +140° F)

Product Codes

GEM NGDRC-100 Digital Remote Control Audio Transmission – Full Systems

- 3-299-534** GEM NGDRC-100 Digital Audio Remote Control Transmitter, 100mW with external microphone, external antenna, shrink wrap, plus single-channel remote control activator with antenna and small special communications receiver Icom IC-R6 with built-in decoder
- 3-299-535** GEM NGDRC-100 Digital Audio Remote Control Transmitter, 100mW with external microphone, external antenna, metal housing, plus single-channel remote control activator with antenna and small special communications receiver Icom IC-R6 with built-in decoder

GEM NGDRC-100 Digital Remote Control Audio Transmission – Components

- 3-299-521** GEM NGD-100 Digital Audio Transmitter, 100mW with ext. mic., shrink wrap
- 3-299-522** GEM NGD-100 Digital Audio Transmitter, 100mW with ext. mic., metal housing
- 3-299-530** GEM single-channel remote control activator (used to switch On/Off any electronic devices)
- 3-299-545** GEM remote control receiver
- 3-299-543** Special communications receiver Icom IC-R6 with built-in decoder

GEM NGDRC-100 Digital Remote Control Audio Transmission – Options

- 3-299-544** GEM decoder only (can possibly be fitted in other communication receivers)

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