

# GSM-R Band Selective Mini Repeater

Model No: MR-GR-900-21W75

## Features:

- Comply with Railway Telecommunications (RT); ER-GSM frequencies; Part 1: ER-GSM additional radio aspects, ETSI TS 102 281 V3.0.0 (2016-02)
- Cost effective alternative to exclusive BTS solution
- User friendly GUI & plug and play installation
- Isolation detection function
- Low power consumption with sleeping mode (saving power)
- Linear power amplification to effectively suppress inter-modulation and spurious emission
- Smart Automatic Level Control (ALC) ensures output level stable and adjustable continuously
- Simple installation with external AC/DC adapter



## Introduction

The EMTS Telecom Services Ltd. GSM-R Band Selective Mini Repeater provides an affordable solution to solve the indoor signal coverage problems in the GSM-R systems due to signal fading and attenuation caused by architecture obstacles. GSM-R systems are used extensively for railway communication both in Europe and Asia. Our GSM-R repeaters are deployed to provide coverage within trains, tunnels and other confined spaces. Our GSM-R products are easily configured either locally or remotely via a remote or a local , the products supplied in a weatherproof IP65 cases. This combination of repeaters permits to reduce dramatically the number of BTS, and then, the total cost of deployment, for a better Quality of Service. The benefits are double: better QoS and better total cost. The repeater is working as a relay between the BTS and mobiles. It receives the low-power signal from BTS via the Donor Antenna, linearly amplifies the signal and then retransmits it via the Service Antenna to the weak/blind coverage area.

**EMTS Telecom Services Ltd.** offers a comprehensive portfolio of enhanced coverage solutions for the Wireless Networks, Based on advanced technologies. **EMTS** proven, indoor and outdoor solutions solve a wide range of network challenges including interference and oscillation problems, challenging coverage holes, rapid response deployment and inadequate in-building coverage. Regardless of the technology or frequency, **EMTS** can provide customized coverage solutions that address any combination of unique and complex network needs for the Wireless Networks.



## Technical Specifications:

1.Electrical Specification		
	Uplink	Downlink
Frequency Range	Type A: 873–880 MHz Type B: 885–889 MHz	Type A: 918–925 MHz Type B: 930–934 MHz
Bandwidth	Various bandwidths are available upon request from 0.2 MHz up to 7 MHz	
Gain	$\cong 75\text{dB}$	
Auto Gain Control (AGC)	$\cong 25\text{dB}$	
Auto Gain Setup Range (Inside)	31dB/1dB step	
Gain Flatness	$\cong 3\text{dB(P-P)}$	
Output Power	21dBm	21dBm
Intermodulation Products	9KHz~1GHz	$\cong -36\text{dBm}$
	1GHz~12.75GHz	$\cong -30\text{dBm}$
Spurious Emission	9KHz~1GHz	$\cong -36\text{dBm}$
	1GHz~12.75GHz	$\cong -30\text{dBm}$
Noise Figure	$\cong 6\text{dB}$	
VSWR	$\cong 1.5$	
Group Delay	$\cong 5 \mu\text{s}$	
Power Consumption	$\cong 40\text{W}$	
Power Supply	DC 5A/9V	
2.Mechanical specification		
Dimensions	191*296*76 mm	
Weight	$\cong 4\text{kg}$	
I/O Connector/ Impedance	N-female / (Nominal)50 $\Omega$	
3.Environmental specification		
IP Rating	IP30	
Operating Temperature	-20°C to 55°C	

### Ordering information:

Model No: MR-GR-900-21W75

X= Downlink Center Frequency

Y= Bandwidth

#### About EMTS Telecom Services Ltd.:

EMTS is a leading supplier of high-quality RF coverage solutions designed to maximize wireless network coverage in difficult RF environments and complex settings. The company specializes in extending RF radio coverage to rural areas, office buildings, subways, tunnels and shadowed areas. The EMTS coverage solution supports all major mobile technologies and standards of wireless Networks.

All rights reserved - Specifications are subject to change without notice

