

**PRODUCT
SPECIFICATION**



Cost effective solution for enhancing indoor coverage for 900 MHz (E)GSM, GSM-R and 900 MHz UMTS applications

Andrew MR918 gives designers a simple tool to solve their small area 900 MHz (E)GSM, GSM-R and 900 MHz UMTS coverage and performance issues.

The MR918 is a bi-directional amplifier used to enhance signals between a mobile and a base station in a mobile network. It has been designed to increase signal strength in small and medium sized areas such as offices, shops, and basements.

MR918 Repeater

Indoor Coverage for GSM-R, 900 MHz (E)GSM, and 900 MHz UMTS Applications

By boosting the signal level the MR918 increases indoor coverage and allows high data rate connectivity.

The MR918 is easy to install. Also a web-based LMT simplifies to commission and configure the equipment. The RF link (donor) towards the base station is typically fed from an outdoor antenna while the coverage area is fed by an indoor antenna. The opportunity to adjust the passband of repeater helps to cover any specific segment of 900 MHz frequency band.

Due to modular design various combinations with MR918, for example variable triple segment or variable dualband versions will be possible within one cabinet.

Autogain functionality enables automatic gain adjustment in order to maximize the performance, however gain may be set manually if desired. An alarm interface with LED's indicates the status of the equipment locally. Moreover the status and alarms of the MR918 can be queried in the web-based LMT.

In Release 2 the MR918 will have an

optional remote monitor function that provides equipment alarming and basic configuration settings via a GSM-SMS. Alarm SMSs (including heart beat) can be send to the common Andrew OMC or to any standard SMS receiver (even a mobile phone). Moreover the MR918 can be connected to LAN.

- Easy to install due to light weight, small dimensions and autogain functionality
- Easy commissioning via web-based LMT
- Automatic level control (ALC)
- Variable bandwidth
- LED's for local alarm indication
- RSSI and Status indication via display
- Meeting GSM 05.05 and 3GPP
- Optional remote control via SMS (Release 2)
- Connection to LAN
- Multi-functional miniRepeater Family Modularity

MR918 - Product Specification

Electrical

Frequency range, MHz	
GSM-R	Uplink 876 to 880 Downlink 921 to 925
EGSM	Uplink 880 to 905 Downlink 925 to 950
GSM	Uplink 890 to 915 Downlink 935 to 960
RF output power, dBm	Uplink +18 @ 1 carrier +15 @ 2 carriers Downlink +18 @ 1 carrier +15 @ 2 carriers
OICP3, dBm	Uplink +41 Downlink +41
P-1dBc, dBm	Uplink +28 Downlink +28
Noise figure Uplink/Downlink, dB	Maximum gain 8.0
Spurious emission, dB	..... According to GSM 05.05; 3GPP
Gain, dB	..... 70
Gain adjust range, dB	..... 30 in steps of 1
Bandwidth options, MHz	..... variable 1 to 25 in steps of 10 kHz
Flatness, dB	..... ±3
Delay, µs	..... 5

Power Supply	Mains Power, Vac 100 to 240 Local Power, Vdc 6
Power consumption, watts	..... 20
Antenna port	Connector SMA Female Return loss, dB 10
Indoor antenna	..... Optional
Antenna gain	..... 2.15 dBi

System Supervision and Control

Alarms	..... Temperature, Current, ALC
Options	..... Remote control and Heartbeat via SMS (Release 2)

Environmental

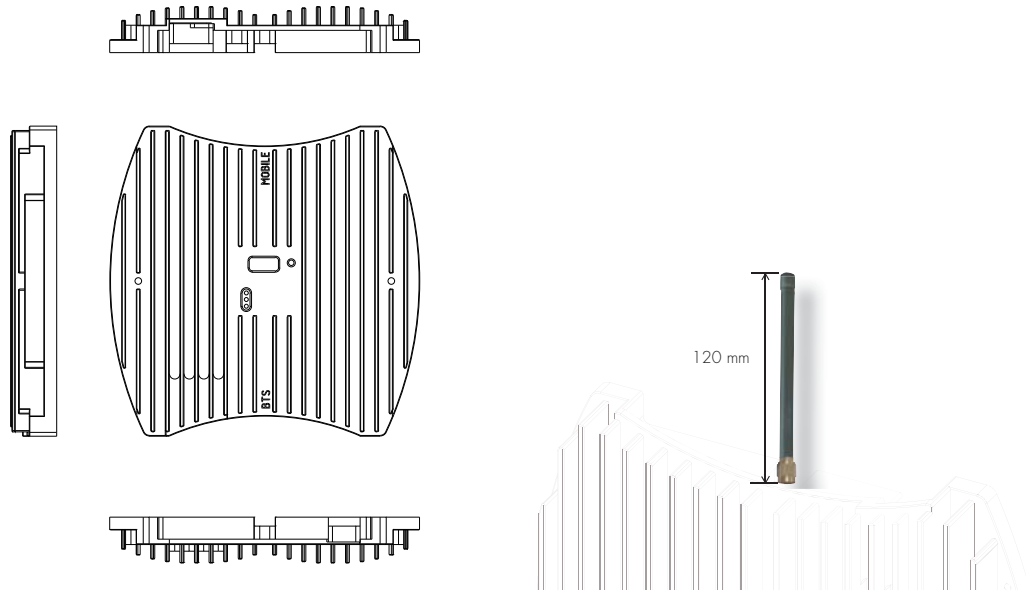
Operating temperature range, °C	..... +5 to +40
Ingress protection	..... IP30

Mechanical

Height, width, depth, mm (in)	..... 240 x 240 x 35 (9.5 x 9.5 x 1.4)
Weight, kg (lb)	..... 1.5 (3.3)

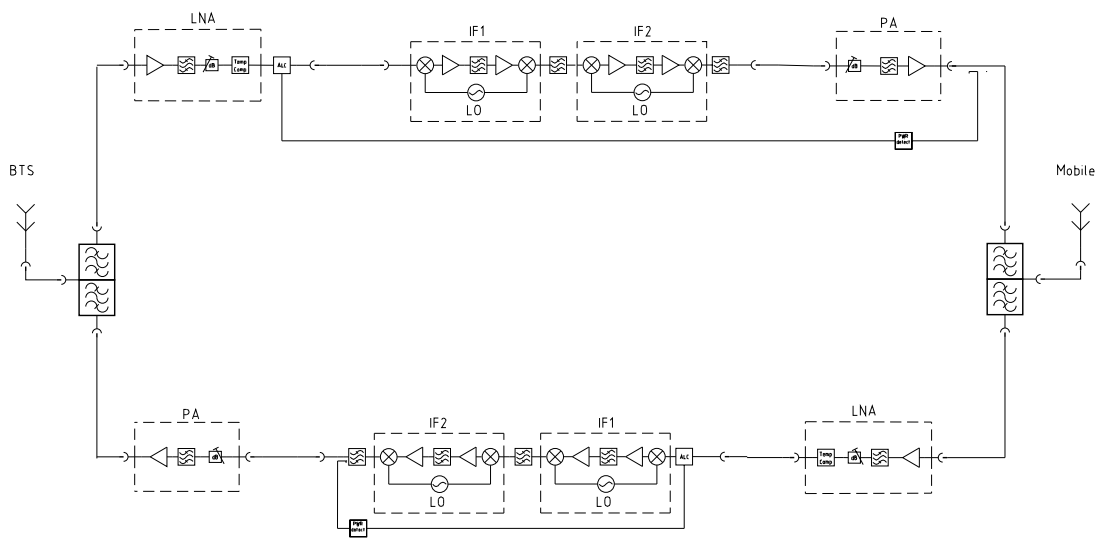
All figures are typical values

MR918 - Product Specification



MRx18 (Release 2)

Optional Equipment: Coverage Antenna for MRx18



Block diagram MRx18

MR918 - Product Specification

MRx18

- Technical Setup
- Status
- Alarms**
- Modem Control
- Connectivity
- Password Management
- Help
- Logout

Alarms

Repeater	MR918	Severity	
ALC Alarm DL	█	Disabled	<input type="text" value="new value"/>
ALC Alarm UL	█	Disabled	<input type="text" value="new value"/>
RSSI Alarm	█	Disabled	<input type="text" value="new value"/>
Current Alarm	█	Disabled	<input type="text" value="new value"/>
Local Oscillator Alarm	█	Disabled	<input type="text" value="new value"/>
Temperatur Alarm	34 °C	Disabled	<input type="text" value="new value"/>

Critical █
Major █
Minor █
Warning █
OK █
Disabled █

Alarms

MRx18

- Technical Setup
- Status**
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Status

Repeater	MR 918
Current Gain DL	70
Current Gain UL	70
RSSI Level	<-80
Output Power DL	<-10,0
Output Power UL	<-10,0
ALC DL	not active
ALC UL	not active

Status

MRx18

- Technical Setup
- Status
- Alarms
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Technical Setup

Repeater	MR918
Duplexer Range DL	935 .. 960 MHz
Duplexer Range UL	890 .. 915 MHz
Userband DL	<input type="text" value="935.00"/> .. <input type="text" value="960.00"/> MHz
Userband UL	890.00 .. 915.00 MHz
Gain Setting DL	70 dB <input type="text" value="new value"/>
Gain Setting UL	70 dB <input type="text" value="new value"/>
Autogain	enabled <input type="text" value="new value"/>
Autogain Inbalance	0 dB <input type="text" value="new value"/>
Autogain Mode	0s/24h <input type="text" value="new value"/>
Max Outputpower DL	18 dB <input type="text" value="new value"/>
Max Outputpower UL	18 dB <input type="text" value="new value"/>
Powerdown	disabled <input type="text" value="new value"/>

Technician Setup

www.commscope.com

Visit our Web site or contact your local Andrew Wireless Solutions representative for more information.

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