
PRODUCT SPECIFICATION

The Allgon Channel Selective Repeater for GSM-1900 - AR 3100A

1. ELECTRICAL SPECIFICATION

<i>Frequency range¹</i>	1850 - 1910 MHz uplink 1930 - 1990 MHz downlink
<i>Number of carriers</i>	1; 2 optional.
<i>Gain²</i>	50 - 90 dB, adjustable in 1 dB steps
<i>Output power</i>	38.8 dBm (7.5W) 1 carrier* 35.7 dBm (3.7W) per carrier at 2 carriers* *(-40 dBm drive)
<i>Selectivity</i>	± 100 kHz > -3 dB ± 400 kHz < -35 dB ± 600 kHz < -45 dB ± 1 MHz < -50 dB ± 5 MHz < -60 dB
<i>Noise figure, typical</i>	5 dB
<i>Max input level (non-destructive)</i>	-20 dBm
<i>Intermodulation, spurioses and harmonics</i>	< -36 dBm at 9 kHz - 2 GHz < -30 dBm at 2 GHz - 12,75 GHz
<i>Group delay</i>	< 5 μ s
<i>RF-connectors</i>	N-female
<i>Voltage supply</i>	115 VAC or 24/48 VDC
<i>Power consumption</i>	30 - 150 W (depending on no. of used channels and traffic levels)

Specifications are subject to change without prior notice!

Mail
Box 541
S-183 25 TÄBY
SWEDEN

Office address
Propellervägen 6 A
Täby

Telephone
Operator: +46-8 540 822 00

Telefax
+46-8 540 824 85



2. ALARM AND MONITOR FUNCTIONS

<i>Alarms³</i>	Power supply failure DC voltages External alarms	Unlocked PLL Poor antenna isolation CU-board failure
<i>Monitor functions³</i>	High temperature Output power	Gain DC testpoints
<i>Externally visible indicators</i>	Operation - yellow LED Alarm - red LED + 2 relay contacts for connection of external alarm eq.	
<i>Local control</i>	Via PC with OMT program	
<i>Remote control</i>	Via modem and fixed line to PC or via built-in MS (optional)	

3. MECHANICAL SPECIFICATION

<i>Dimensions (WxHxD)</i>	440 x 530 x 174 mm	17.3 x 20.9 x 6.9 inches
<i>Dimensions (WxHxD), optional</i>	440 x 530 x 240mm	17.3 x 20.9 x 9.4 inches
<i>Weight</i>	21 kg	46 lbs.
<i>Weight, optional</i>	25 kg	55 lbs.
<i>Lock type</i>	ABLOY	
<i>MTBF per 2 channels</i>	50000 hours	

4. ENVIRONMENTAL SPECIFICATION

<i>Temperature range, operation</i>	- 25°C to + 55°C	- 13°F to + 131°F
<i>Casing class</i>	IP 55	(Water- and dustproof, high pressure)

5. SPECIAL FEATURES

- Stability Supervision
- Radio Signal Strength Indicator
- No of active timeslots
- Software Download
- Temperature Supervision
- Compability with *The Allgon Advanced Repeater - OMC*

¹ The full PCS band is divided into subbands since duplex filter covers 40 Mhz (easily exchangeable in the field).

² Applicable performance parameters are measured at 85 dB gain

³ Examples of alarms and monitor functions

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