PRODUCT DESCRIPTION

SolBoost R2, the second generation of RETEMSA's successful SolBoost repeater, is a bi-directional superheterodyne receiver/transmitter designed to provide cost effective coverage for rural areas where GSM signal is weak. Being a band selective repeater, it allows enhancing coverage only for those operators the customer requires. As a new feature of its R2 version, bandwidth is digitally programmable.

PRODUCT FEATURES

- Easy rural coverage enhancement. Temporary coverage for special outdoors locations ("repeater on wheels").
- Minimum site requirements thanks to its advanced IC technology (Interference Cancellation up to 50 dB) that lets donor and service antennas to be installed in the same low cost tower/mast with limited separation (< 3 meters).
- Low consumption (< 40 W) allowing the use of solar panels and wind generators to power the system at a competitive cost.
- E-Saver energy saving functionality, which minimizes power requirements when battery levels are low.
- Band Selective solution, requiring no change in the existing client's network configuration and features. Bandwidth is digitally programmable in the new SolBoost R2 version.
- Remote operation & maintenance via built-in GPRS modem. HTML, VML and SNMP protocols available for remote management.
- Available in 850, 900, 1800 and 1900 frequency bands.
- Up to 33 dBm output power, with up to 100 dB gain.
- 60 dB dynamic margin, with ALC loops to suppress unwanted disturbing radio signals.
- Power packs available: solar, hybrid (solar + wind generator), AC with battery back-up.

RURAL COVERAGE EXTENSION GSM REPEATERS

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MECHANICAL AND ENVIROMENTAL SPECIFICATIONS

Parameters	Test Conditions	Downlink			Uplink			Units
Work Band	At -3 dB	Customized			Customized			MHz
BandWidth	At -3 dB	Programmable, from 0.2 MHz			Programmable, from 0.2 MHz			MHz
Parameters	**Test Conditions**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Units**
OutPut power (1 carrier)	1dB compression point		+32	+33		+32	+33	dBm
OutPut power (2 carriers)	1dB compression point		+29			+29		dBm
IP3	Two equal carriers		+40			+40		dBm
Input sat. Level (1 carrier)	1 carrier		-20			-20		dBm
Out of band rejection		± 1 MHz			± 2 MHz			
		Min	Typ	Max	Min	Typ	Max	
Uplink			-30			-45		dB
Downlink			-30			-45		dB
Parameters	**Minimum**	**Typical**			**Maximum**			**Units**
Uplink Gain (1dB steps programmable)	45	95			100			dB
Downlink Gain (1dB steps programmable)	45	95			100			dB
In Band Ripple		± 2						dB
ALC window		60						dB
Uplink Excitability		-80						dBm
Downlink excitability		-80						dBm
Noise factor		8						dB
In/Out impedance		50						Ω
Return losses		-12						dB
Group Delay		3						µs
Power Supply DC levels	20	24			40			Vdc
Power consumption	33	40			45			W

ELECTRICAL SPECIFICATIONS AT Ta=25ºC

RF connectors	N Female	Other options on demand
MTBF	100.000 Hours	CE ETSI
Temperature range	-20ºC to 55ºC	IP 55
Package Dimensions (mm)	WxHxD	300 x 400 x 230 mm

Factory defaults.
Manufactured under ISO 9002.
Specifications subject to change without notice.