

Tower Mounted Boosters

Application

For ongoing rollout with high emphasis on coverage objectives, the RFS Tower Mounted Booster (TMB) provides a low-cost solution for efficient coverage of low-density population areas. Allowing a reduction of the number of sites needed, the TMB minimizes capital expenditure linked to a project.

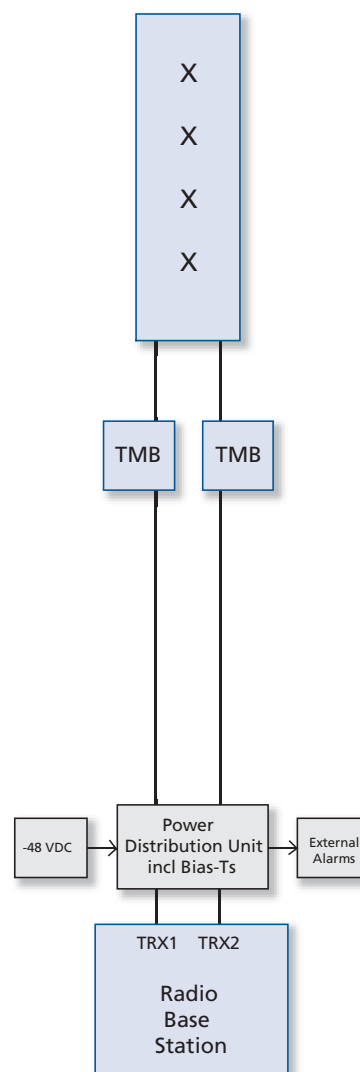
The RFS boosters are designed to be used, both for the EGSM 900 and DCS 1800 application. The booster system is designed to be located in the tower close to the antenna, ensuring the best possible BTS up-link sensitivity and providing the highest down-link power available on the market. The system requires one Power Distribution Unit and two TMBs for a dual-carrier solution. The Power Distribution Unit is placed in the base station cabinet, supplying power, controlling TMB and reporting alarm status.

The TMB is an optimal solution for the following application:

- For compensation of large feeder loss.
- For coverage of low-density populated areas
- For highway coverage where the traffic does not justify a large number of sites.
- For boosting cell coverage e.g. along coastlines.
- For boosting up low power signals from micro BTS.

Features & Benefits

- High down-link power, EDGE and GSM compliant
- Built-in bias-tee: No need for additional cabling in the tower
- Gain setting of uplink and downlink for correct cell balancing
- Simple and user-friendly mounting method
- Enlargement of the cell size
- Less BTS sites
- Improvement of downlink coverage
- Increases the overall system uplink receiver sensitivity
- Reduction of the dropped call rate and improved call quality
- More revenue per BTS



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GSM 900 and 1800 boosters

	BTM904515S-2	BTM904515S-2-Low	BTM184515S-1
Frequency Band, UL, MHz	885-915	880-910	1710-1785
Frequency Band, DL, MHz	930-960	925-955	1805-1880
Bandwidth, MHz	30	30	75
Output Power, GSM, dBm	46.0 ± 1.5	46.0 ± 1.5	46.0 ± 1.5
Output Power, EDGE, dBm	44.5 ± 1.5	44.5 ± 1.5	44.5 ± 1.5
Tx Gain, dB	14.0 ± 1.5	14.0 ± 1.5	14.0 ± 1.5
Tx Gain adjustment range, step size 0.5 dB, dB	0-14	0-14	0-14
Rx Gain, dB	16.0 ± 1.0	16.0 ± 1.0	16.0 ± 1.0
Rx Gain adjustment range, step size 1.0 dB, dB	6 to 16	6 to 16	6 to 16
Rx Noise Figure, typ @ 25°C, dB	1.8	1.8	1.8
IIP3, dBm	-2	-2	-2
Indoor/outdoor	Outdoor IP66	Outdoor IP66	Outdoor IP66
Weight, kg (lb)	16 (35.2)	16 (35.2)	16 (35.2)

Power supply and battery backup unit for booster

	PDU48400D-1
Input Supply Voltage, VDC	-48
Input Supply Current, A	10
Output Supply Voltage, VDC	31.5
Bias Tee Insertion Loss, dB	0.25
Alarm Reporting	Yes
Indoor/outdoor	Indoor