

BEAMREACH NETWORKS

MODIFICATIONS MADE TO THE BRN5000 BASESTATION FOR FCC COMPLIANCE

SEPTEMBER 29, 2003

The following is a list of the modifications that were required to the BeamReach BRN5000 basestation hardware in order to comply with FCC regulations per FCC CFR47 Part 15 and Part 27.

1. Added an aluminum shroud over the bottom rear portion of the main rack to reduce radiated emissions. This shroud covers the rear of the fan tray assembly, the 9U backplane assembly and the 4U backplane assembly, with cabling either routed out through the shroud or terminated with connections on the shroud.
2. Added absorber material to the rear of the shroud to reduce radiated emissions. Material is ETS-Lindgren PN FL-1125CL. This is a flat laminate absorber made from three layers of carbon-impregnated foam with a thickness of 2.9 cm. The reflection coefficient of this absorber is guaranteed to be -20 dB or less at 3.0 GHz.
3. Added 5 ferrites on cables at exit from shroud.
4. Added shielding to the Fast Ethernet and DS-3 cables between the 9U backplane and the top of the rack.
5. Modified the LO primary and redundant modules to enable or disable the LO outputs when not being used.
6. Routing of coax cabling on the LO Module was modified, with 6 cables now routed on the topside of the board connected between the right angle edge connector and right angle PCB-mounted connectors.

BASE CONFIGURATION TESTED

1. The base was configured for 8 antenna, 3 subband pair, redundant WCS operation, which is the highest total output power of the configurations to be included in the base certification. Other configurations to be included in this certification are:

- 8 antenna, 1 subband pair redundant

- 8 antenna, 2 subband pair redundant

- 6 antenna, 1 subband pair redundant

- 6 antenna, 2 subband pair redundant

- 6 antenna, 3 subband pair redundant

- all previously mentioned configurations but with non-redundant hardware for a total of 12 different configurations.

2. WCS bands tested included A and B but not C or D.

3. Backhaul interfaces tested included ATM over OC-3, ATM over DS3 and IP over 100baseT.

4. Power amps used were 10 watt versions.