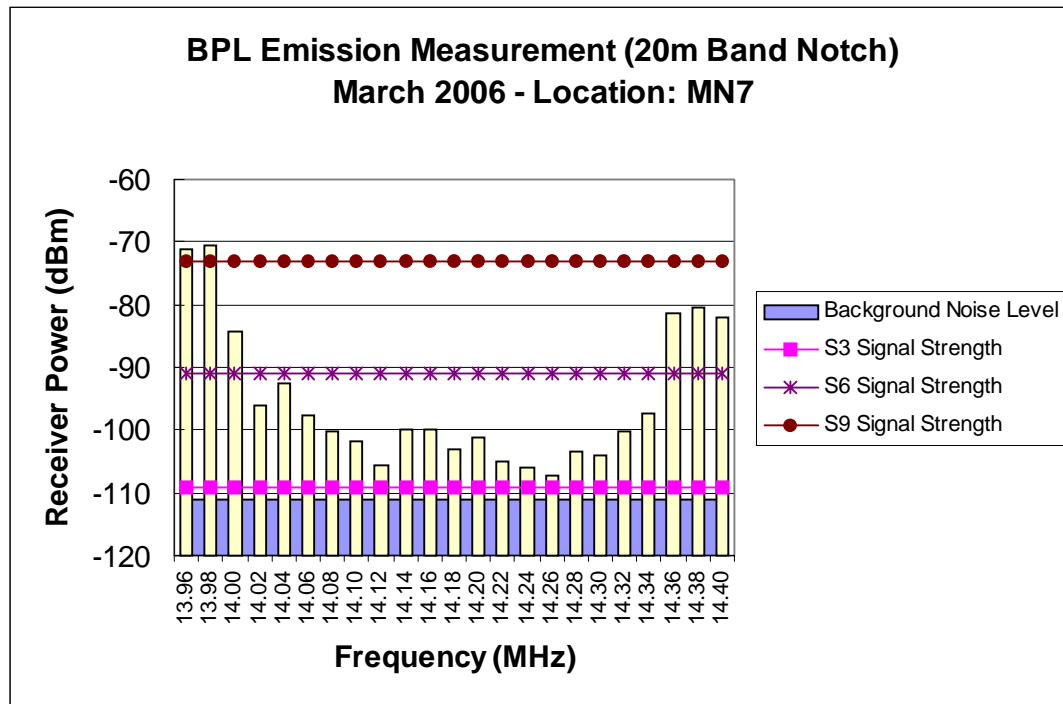


Tasmanian BPL Trial Emissions Measurement

Version: 20060326

Measured Emissions (Notched 20m Band)



Notes:

- Key approach was to measure ambient noise level outside of trial area which proved to be the same as forecast by ITU-R P.372-8 median galactic noise level, then compare this to measurements taken within the trial areas to demonstrate the degradation of the noise floor and the depth of the notching being employed in the trial by making a measurement every 20kHz from 13.960MHz to 14.400MHz;
- Measurements were taken approximately 20 metres from powerlines using [FSM Software](#) Version 1.10, Yaesu FT7 Transceiver, MobileOne Hamtennae M20-1 Vertical Helical antenna mounted on the towbar;
- Measurements were made in March 2006;
- S meter scale is based on S9 = 50uV and the scale is presented for comparison purposes only;
- The signal strengths shown in the chart are for a mobile station with a shortened antenna. Fixed stations with a larger antenna at similar distance from the power lines would expect to receive signals 6 to 20dB higher than shown in the chart.
- Test location was Mount Nelson 7.

Conclusion:

Measurements demonstrate that the notching as measured at the street is variable, whilst some parts of the notched spectrum may be **20dB** (100 times) or lower in strength, the notch does not reliably achieve better than about **10dB** (10 times lower - excusing the high reading at 14.0MHz as a band edge configuration error) reduction.