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NMP/DCU/Tampere

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DESCRIPTION OF CIRCUITRY SUPPRESSING SPURIOUS AND HARMONIC EMISSIONS

FCC ID: PDN-DTL-1

Circuits for suppression of spurious radiation

Printed Wiring Board (PWB) of DTL-1 card is of multilayer type. There is a dedicated ground layer and unused areas on signal layers are also covered with ground plane.

Most of functional RF blocks are mounted on a multi-chip module (MCM) which is placed on the main PWB. The MCM has its own multilayer PWB. Besides RF parts, the MCM also contains Master Controller Unit (MCU) and Digital Signal Processing functions. The PWB of the MCM contains two common ground planes. All other layers are signal layers with the unused areas acting as a ground plane. The MCM has metal shield covering all components. Conducted spurious emissions from the MCM are attenuated with bandpass filter. The filter has reference number Z180 on radio module's schematic diagram.

CompactFlash™ size frame (cover) of the card has grounded metal sheets on both sides.

CompactFlash-to-PC Card adapter FLA-15 has a two-layer PWB where any unused areas act as ground plane. Metal covers of the FLA-15 are grounded.

Layout design has been completed according to EMC/EMI guidelines. Components are standard SMD or flipchip type and mounted using reflow soldering.

Power limiting

The transmit power isn't adjusted. The maximum power is +4dBm.

Simo Vapaakoski
Product Program Manager