

Date: 04/06/2015

Timco Engineering Inc
849 N.W. State Road 45
PO Box 370
Newberry
Florida 32669

Simoco Australasia Pty Ltd
1270 Ferntree Gully Rd, Scoresby, VIC 3179
T+61 (0) 3 9730 3999 F+61 (0) 3 9730 3964
www.simocogroup.com

Re: STZSDP600UW Certification: 6.25 kHz Equivalence Attestation.

To Whom It May Concern:

The Simoco SDP600 series of portable radios are designed to operate in accordance with the ETSI TS102 361 Digital Mobile Radio Systems standard.

The ETSI DMR standard is based on two-slot TDMA technology utilising 4FSK digital modulation operating at 9600 bps on 12.5 kHz channel spacing with time slot durations of 30 ms.

The SDP600 portable radio uses the AMBE+2 half-rate vocoder and can operate on either of two independent voice traffic channels operating in alternating 30 ms time slots on a single 12.5 kHz physical channel. The slots consist of two 108-bit payload fields and one 48-bit synchronization field. Each slot has a total length of 30 ms but only 27.5 ms are used for the 264 bits content, which is sufficient to carry 60 ms of compressed speech using 216 bits payload.

In summary the implementation of the DMR TDMA technology described above in the SDP600 UW portable shows that it complies with 47 CFR Part 90.203 (j) (4)(ii), that is one voice channel per 6.25 kHz bandwidth or equivalence by using either of the two voice channels per 12.5 kHz bandwidth and for 47 CFR Part 90.203 (j) (5), the data message bit rate is 9600 bps per 12.5 kHz bandwidth and so is equivalent to the required 4800 bps in a 6.25 kHz channel bandwidth.

Yours sincerely,

Simoco Australasia Pty Ltd

Robert Stowell



Senior Engineer