

ANNEX A
TEST DATA Section Rule Part Number: 2.1033 (c)(14)

All applicable test data according to:

- Part 2: 2.1046, 2.1047, 2.1049, 2.1051, 2.1053 and 2.1057
- Part 15:15.209 (15.207 does not apply)
- Part 90, Subpart R: 90.521 to 90.555
- Part 27, Subpart C: 27.50 to 27.54

are provided in this section of the Engineering Report, as shown detailed below:

part-pages	Data Contents	FCC parts	Laboratory
A0-2	General. Data efficiency Spurious radiation in the band 1559-1910MHz	2.1033 (c)(14) 90.535(a)(c) 90.543(e),27.53(e)	
A1-1	Transmitter Rated Power Output	2.1046, 90.541, 27.50(a)(2)	R&D Dataradio Inc
A2-1	Modulation characteristics	2.1047, 90.535	R&D Dataradio Inc
A3-3	Occupied bandwidth	2.1049, 90.543(d),27.53(d)(4)	R&D Dataradio Inc
A4-2	Spurious Emissions at Antenna Terminals	2.1051,90.543(c),27.53(d)(3)	R&D Dataradio Inc
A5-19	Field Strength of Spurious Radiation	2.1053,90.543(c),(e),27.53(e)	Aprel Laboratories
A6-2	Frequency Stability vs Variation in Ambient Temperature	2.1055(a), 90.539,27.54	R&D Dataradio Inc
A7-1	Frequency Stability vs Variation in Supply Voltage	2.1055(d),90.539,27.54	R&D Dataradio Inc
A8- 14	Adjacent Channel Coupled Power	90.543(a),(b),27.53(d)	R&D Dataradio Inc
44	Total number of report pages		

The following reports have been generated for FCC Certification of the Dataradio 742-776 MHz 5W Transmitter, part number BDP3-87S-RBWWPM. Unless otherwise noted, all of the measurements were conducted following the procedures set forth in the TIA/EIA-603 rev B standards.

Set-up and equipment identification

OEM transmitter unit (EUT): T881-10-0020 s/n: 13012187

Dataradio modulation source: prototype P3 , banner ID 200+DATARADIO Paragon-III G3[02] v1.00(Build:1)
(CodeBase:SWINT_040520) +(Steve 200 P:1), DSP built DSP_1737Beta_RC4

Open Area Test Site (OATS): FCC certified Open Area Test Site at the Aprel Laboratories located at 51 Spectrum Way Nepean Ontario, Canada

Modulation and Spectrum Usage Efficiency (90.535 (a)(c))

The unit employs only digital modulation as per 90.535 (a). The unit is designed for a channel size of 50 kHz as per 90.531(c) with a spectrum efficiency of 128kbps/50kHz . This equates to $128 \times 3 \text{kbps} / 50 \times 3 \text{kHz} = 384 \text{kbps} / 150 \text{kHz}$ as required by 90.535(c)

The part 90.531(d)(2) states that two or three contiguous wideband (50 kHz) channels may be used in combination as 100 kHz or 150 kHz channels. Rates of 256kbps/100kHz and 384kbps/150 kHz respectively can be achieved running 3 units appropriately programmed

Emissions in the band 1559-1610MHz (90.543(e),27.54(e))

The unit does not present any spurious products above the noise floor of the instrument in the mentioned band while set for frequencies in bands 762-764MHz or 767-773MHz. The noise floor of the instrument (Agilent 8563EC) was found to be –90dBW/MHz also equated to –120dBm/Hz, this is 30dB better than required specification.