



To: FCC
Federal Communication Commission

From: VideoComm Technologies
Feb. 29, 2008

Re: Request for limited modular approval

VideoComm Technologies of Oakville Ontario Canada are requesting FCC approval for their device “MSR RADIO MODULE” as a limited modular transmitter. The requirements of FCC Public Notice DA 00-1407 are met as follows:

- 1) The modular transmitter must have its own RF shielding.**
The MSR RADIO has all RF circuitry shielded. (See exhibit photos)

- 2) The modular transmitter must have buffered modulation data/inputs.**
The MSR RADIO has buffered modulation/data inputs.

- 3) The modular transmitter must have its own power supply regulation**
The MSR RADIO MODULE has its own power supply regulation.

- 4) The modular transmitter must comply with section 15.203 and 15.204(c)**
The MSR RADIO MODULE will be sold ONLY as part of a system made by VideoComm. As a module it complies with the antenna requirements.

- 5) The modular transmitter must be tested in a stand-alone configuration.**
The MSR RADIO MODULE was tested in a stand alone configuration

- 6) The modular transmitter must comply with the AC line conducted requirements found in Section 15.207.**
The MSR RADIO MODULE complies with AC LINE conducted requirements.

- 7) The modular transmitter must be labeled with its own FCC ID number.**
The MODULE will have the FCC ID affixed to it and the SYSTEM will also be labeled to indicate that “DEVICE CONTAINS MODULE with FCCID# “(see attached exhibits for diagrams and sample labels)

- 8) **The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions with the module to explain any such requirements.**

The MSR RADIO MODULE complies with all applicable FCC Detailed instructions are given in the "Installation Guide" (see included exhibits)

- 9) **The modular transmitter must comply with any applicable RF exposure requirements.**

The maximum measured power output is 801.68 mW (29.04 dBm), the maximum antenna gain is 32 dBi (highest gain antenna of all families tested) (see also FCC test report)

The maximum permissible exposure is defined in 47 CFR 1.1310 with 1 mW/cm². The distance from the EUT's transmitting antenna where the exposure level reaches the maximum permitted level is calculated using the general equation:

$$r = \sqrt{\frac{P \cdot G}{4 \cdot \pi \cdot S}} = \sqrt{\frac{EIRP}{4 \cdot \pi \cdot S}} \quad (S_{Limit}) = 1.0 \text{ mW/cm}^2$$

The tables below represent all of the system antennas. Those in "purple" were TCB tested. And the safe installation distances calculated

It must be noted that these systems are manufactured, distributed and sold with the intention of Professional Installation of the final system.

OUTDOOR ALL WEATHER SYSTEMS ALL INSTALLED AS FIXED POINT TO POINT ONLY				
Rubber Duck Family 5.8 GHz				
SYSTEM MODEL	AMPLIFIER	PEAK POWER	ANTENNA GAIN	SEPARATION DISTANCE
RT-L1R5803	NO	26.59 dBm	3dBi Ducky	20cm (7.9 Inches)
RT-X1R5803	YES	29.04 dBm	3dBi Ducky	20cm (7.9 Inches)
Antennas Tested By TCB				
Panel Antenna Family 5.8 GHz				
SYSTEM MODEL	AMPLIFIER	PEAK POWER	ANTENNA GAIN	SEPARATION DISTANCE
RT-L1R5807	NO	26.59 dBm	7dBi Embedded	20cm (7.9 Inches)
RT-X1R5807	YES	29.04 dBm	7dBi Embedded	20cm (7.9 Inches)
RT-L1R5814	NO	26.59 dBm	14dBi Embedded	30.19 cm (11.9 Inches)
RT-X1R5814	YES	29.04 dBm	14 dBi Embedded	40.03 cm (15.8 Inches)
RT-L1R5821	NO	26.59 dBm	21 dBi External	67.59 cm (26.6 Inches)
RT-X1R5821	YES	29.04 dBm	21dBi Embedded	89.62 cm (35.3 Inches)
Antennas Tested By TCB				
Parabolic Antenna Family 5.8 GHz				
SYSTEM MODEL	AMPLIFIER	PEAK POWER	ANTENNA GAIN	SEPARATION DISTANCE
RT-L1R5829	NO	26.59 dBm	29 dBi	169.79 cm (66.8 Inches)
RT-X1R5829	YES	29.04 dBm	29 dBi	225.11 cm (88.6 Inches)
RT-L1R5832	NO	26.59 dBm	32 dBi	239.83 cm (94.4 Inches)
RT-X1R5832	YES	29.04 dBm	32 dBi	317.98 cm (125.2 Inches)
Antennas Tested By TCB				
Rubber Duck ANTENNA FAMILY 2.4 GHZ				
SYSTEM MODEL	AMPLIFIER	PEAK POWER	ANTENNA GAIN	SEPARATION DISTANCE
RT-L2R2403	NO	26.80 dBm	3dBi Ducky	20cm (7.9 Inches)
Antennas Tested By TCB				
PANEL ANTENNA FAMILY 2.4 GHZ				
SYSTEM MODEL	AMPLIFIER	PEAK POWER	ANTENNA GAIN	SEPARATION DISTANCE
RT-WR2L245	NO	26.80 dBm	15 dBi	34.71 cm (13.7 Inches)
Antennas Tested By TCB				

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INDOOR DESKTOP SYSTEMS					
INDOOR DESKTOP SYSTEMS 5.8 GHz MOBILE APPLICATIONS POINT TO POINT ONLY					
SYSTEM MODEL	RPS	AMPLIFIER	PEAK POWER	ANTENNA GAIN	SEPARATION DISTANCE
XRT-L1R583	YES	NO	26.59 dBm	3dBi Ducky	20cm (7.9 Inches)
XRT-L1R588	YES	NO	26.59 dBm	8 dBi Magnetic panel	20cm (7.9 Inches)
XRT-X1R583	YES	YES	29.04 dBm	3dBi Ducky	20cm (7.9 Inches)
INDOOR DESKTOP FAMILY 2.4 GHZ MOBILE APPLICATIONS POINT TO POINT ONLY					
SYSTEM MODEL	RPS	AMPLIFIER	PEAK POWER	ANTENNA GAIN	SEPARATION DISTANCE
XRT-L2R243	YES	NO	26.80 dBm	3 dBi Ducky	20cm (7.9 Inches)
XRT-L2R248	YES	NO	26.80 dBm	8 dBi Magnetic panel	20cm (7.9 Inches)
	(RPS= Reverse polarity SMA Connector)				

5.8GHz Antenna Description & Manufacturer

VCT Model #	Supplier Part #	Manufacturer	Type	Frequency	Gain
RUB-5803	GX5800X03J/w205	Wellhope Comm.	Ducky	5.8GHz	3dBi
RUB-5803rps	GX5820Z15J/w281	Wellhope Comm.	Ducky	5.8GHz	3dBi
ANT-5807ip	Not Applicable	VideoComm	Internal Patch	5.8GHz	7dBi
ANT-5808ip-RPS	Not Applicable	VideoComm	External Patch	5.8GHz	8dBi
ANT-5814ip	Not Applicable	VideoComm	Internal Patch	5.8GHz	14dBi
ANT-5821dp	Not Applicable	VideoComm	External Patch	5.8GHz	21dBi
ANT-5821ip	Not Applicable	VideoComm	Internal Patch	5.8GHz	21dBi
PARA-5829	G5800P29A60	Guanhua Comm.	Parabolic Dish	5.8GHz	29dBi
PARA-5832	G5800P32A60	Guanhua Comm.	Parabolic Dish	5.8GHz	32dBi

Legend:

← RPS = Reverse Polarity SMA

2.4GHz Antenna Description & Manufacturer

VCT Model #	Supplier Part #	Manufacturer	Type	Frequency	Gain
RUB-243s	TLB-2400BL	Boboto Telecom	Ducky	2.4GHz	3dBi
RUB-243RPS	TLB-2400BLS	Boboto Telecom	Ducky	2.4GHz	3dBi
ANT-2408ip/RPS	HX5820Z08A/X951	Wellhope Comm.	External Patch	2.4GHz	8dBi
ANT-2415dp	HX5820Z08A/X951	Wellhope Comm.	Internal Patch	2.4GHz	15dBi

← RPS = Reverse Polarity SMA