

Type Acceptance Test Report

Wideband FM Video Transmit Module

FCC ID: Q4NM1700

FCC Rule Part: 90

ACS Report Number: 03-0168-90TA

Manufacturer: Datawave
Model: Datawave M1700

RF Exposure Information

General Information:

Applicant: Datawave Technologies
 ACS Project: 03-0168
 FCC ID: Q4NM1700
 Device Category: Mobile
 Environment: General Population/Uncontrolled Exposure

Technical Information:

Antenna Type: Integrated folded dipole and External Patch
 Antenna Gain: 0 dBi
 Transmitter Conducted Power: 29.4dBm or 870.96mW
 Maximum System EIRP: 29.4dBm or 870.96mW
 Operating Configuration: Intended for integration into various mobile devices
 Exposure Conditions: Greater than 20cm from the population

MPE Calculation

The minimum separation distance is calculated as follows:

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d} \qquad \text{Power Density: } P_d = (mW/cm^2) = \frac{E^2}{3770}$$

MPE Distance

Transmit Freq. (MHz)	Radio Power (dBm)	Power Density (mW/Cm2)	Radio Power (mW)	Antenna Gain (dBi)	MPE Distance (cm)
2458	29.4	1.00	0.87	7	18.6376

Installation Guidelines

The installation manual contains the following text advising how to install the equipment to maintain compliance with the FCC RF exposure requirements:



Warning: All original equipment manufacturers (OEM) integrating this device within their products must maintain a minimum distance of 20cm between the installed antenna and the user or general population. For applications requiring handheld or body worn operations OEMS must submit their product to the FCC for Specific Absorption Rate (SAR) testing.

Conclusion

This device complies with the MPE requirements by providing adequate separation between the device, any radiating structure and the general population.