

Customer: IPMobile Net

1/8/02

EUT: INVADER IP8HPV Data Transceiver

Test: Antenna Substitution Method for Radiated Spurious Emissions (Ref ANSI/TIA/EIA-603-A)

FCC Limit: 43 + 10log(TP) (Ref 90.210(g))

Fundamental Frequency: 806MHz

Emission Frequency (GHz)	Antenna Polarz. (V/H)	Power into Sub. Ant. (dBm)	Cable Correction (dB)	Antenna Gain (dBd)	Dipole Equiv. Pwr (dBm)	Spurious Emissions (dB)	FCC Limit (dBc)	Delta to FCC Limit (dB)
1.612	V	-40.74	1.29	6.67	-35.36	77.36	55	-22.36
1.612	H	-40.02	1.29	6.67	-34.64	76.64	55	-21.64
2.418	V	-42.33	1.52	8	-35.85	77.85	55	-22.85
2.418	H	-39.49	1.52	8	-33.01	75.01	55	-20.01
4.03	V	-34.46	1.58	7.83	-28.21	70.21	55	-15.21
4.03	H	-29.72	1.58	7.83	-23.47	65.47	55	-10.47
5.642	V	-43.64	2.16	9.15	-36.65	78.65	55	-23.65
5.642	H	-43.5	2.16	9.15	-36.51	78.51	55	-23.51

Fundamental Frequency: 814MHz

Emission Frequency (GHz)	Antenna Polarz. (V/H)	Power into Sub. Ant. (dBm)	Cable Correction (dB)	Antenna Gain (dBd)	Dipole Equiv. Pwr (dBm)	Spurious Emissions (dB)	FCC Limit (dBc)	Delta to FCC Limit (dB)
1.628	V	-39.92	1.29	6.67	-34.54	76.54	55	-21.54
1.628	H	-43.11	1.29	6.67	-37.73	79.73	55	-24.73
2.442	V	-52.87	1.52	8	-46.39	88.39	55	-33.39
2.442	H	-46.35	1.52	8	-39.87	81.87	55	-26.87
4.07	V	-43.02	1.58	7.83	-36.77	78.77	55	-23.77
4.07	H	-40.3	1.58	7.83	-34.05	76.05	55	-21.05
5.698	V	-47.53	2.16	9.15	-40.54	82.54	55	-27.54
5.698	H	-56.22	2.16	9.15	-49.23	91.23	55	-36.23

Fundamental Frequency: 821MHz

Emission Frequency (GHz)	Antenna Polarz. (V/H)	Power into Sub. Ant. (dBm)	Cable Correction (dB)	Antenna Gain (dBd)	Dipole Equiv. Pwr (dBm)	Spurious Emissions (dB)	FCC Limit (dBc)	Delta to FCC Limit (dB)
1.642	V	-52.5	1.29	6.67	-47.12	89.12	55	-34.12
1.642	H	-51.15	1.29	6.67	-45.77	87.77	55	-32.77
2.463	V	-43.04	1.52	8	-36.56	78.56	55	-23.56
2.463	H	-48.01	1.52	8	-41.53	83.53	55	-28.53
4.105	V	-45.15	1.58	7.83	-38.9	80.9	55	-25.9
4.105	H	-45.11	1.58	7.83	-38.86	80.86	55	-25.86
5.747	V	-54.7	2.16	9.15	-47.71	89.71	55	-34.71
5.747	H	-61.08	2.16	9.15	-54.09	96.09	55	-41.09

(Ref ANSI/TIA/EIA-603-A)

Dipole Equivalent Power (dBm) = Power into substitution ant. (dBm) - cable loss (dB) + ant. gain (dBd)

Radiated Spurious Emissions (dB) = 10log (TX power in watts / 0.001) - dipole equivalent power (dBm)