

11/11/02 FCC Measurement

Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Thanh Nguyen

Project #:

Company: Invensys Metering Systems

EUT Descip.: 902-928 MHz DSSS Automatic Meter Reading system

EUT M/N: FCC ID: KCHMXU510

Test Target: 15.247, 15.205, 15.209

Equipment for 1-22 GHz:

HP8566B Analyzer
 HP 8449 Pe-amp
 EMCO 3115 Antenna
 Cable: 13.0 feet

Equipment for 22 - 58 GHz:

HP8566B Analyzer
 HP 11975A Amplifier (LO)
 HP 11970K External mixer/antenna
 Cable: IF Only (321 MHz)

Peak Measurements:

1 MHz Resolution Bandwidth
 1MHz Video Bandwidth

Average Measurements:

1MHz Resolution Bandwidth
 10Hz Video Bandwidth

f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
0.903	3.3	94.1		#N/A	1.9	0.0	-9.5	0.0	#N/A		74.0	54.0	#N/A		V
1.806	3.3	54.8	45.3	27.0	2.9	0.0	-9.5	0.0	75.3	65.8	74.0	54.0	1.3	11.8	H
1.806	3.3	55.3	8.7	27.0	2.9	0.0	-9.5	0.0	75.8	29.2	74.0	54.0	1.8	-24.8	V
2.710	3.3	58.5	49.7	29.9	3.5	-36.0	-9.5	1.0	47.4	38.6	74.0	54.0	-26.6	-15.4	H
2.710	3.3	58.3	51.5	29.9	3.5	-36.0	-9.5	1.0	47.2	40.4	74.0	54.0	-26.8	-13.6	V
3.615	3.3	52.2	40.5	32.5	4.1	-35.3	-9.5	1.0	45.0	33.3	74.0	54.0	-29.0	-20.7	V
3.615	3.3	53.8	42.8	32.5	4.1	-35.3	-9.5	1.0	46.6	35.6	74.0	54.0	-27.4	-18.4	H
4.520	3.3	54.5	45.2	33.0	4.8	-34.6	-9.5	1.0	49.1	39.8	74.0	54.0	-24.9	-14.2	H
4.520	3.3	53.5	43.0	33.0	4.8	-34.6	-9.5	1.0	48.1	37.6	74.0	54.0	-25.9	-16.4	V
5.423	3.3	52.5	41.5	35.2	5.3	-34.4	-9.5	1.0	50.1	39.1	74.0	54.0	-23.9	-14.9	V
5.423	3.3	52.0	40.5	35.2	5.3	-34.4	-9.5	1.0	49.6	38.1	74.0	54.0	-24.4	-15.9	H
6.326	3.3	54.0	42.5	35.5	5.9	-34.5	-9.5	1.0	52.4	40.9	74.0	54.0	-21.6	-13.1	H
6.326	3.3	57.0	50.7	35.5	5.9	-34.5	-9.5	1.0	55.4	49.1	74.0	54.0	-18.6	-4.9	V
7.230	3.3	55.5	44.2	37.0	6.3	-34.6	-9.5	1.0	55.7	44.4	74.0	54.0	-18.3	-9.6	V
7.230	3.3	55.5	46.7	37.0	6.3	-34.7	-9.5	1.0	55.5	46.7	74.0	54.0	-18.5	-7.3	H
8.134	3.3	53.8	41.8	37.7	6.7	-34.7	-9.5	1.0	55.0	43.1	74.0	54.0	-19.0	-10.9	H
8.134	3.3	53.3	42.0	37.7	6.7	-34.7	-9.5	1.0	54.5	43.2	74.0	54.0	-19.5	-10.8	V
9.038	3.3	53.2	41.7	38.4	7.1	-34.9	-9.5	1.0	55.3	43.8	74.0	54.0	-18.7	-10.2	V
9.038	3.3	54.7	43.5	38.4	7.1	-34.9	-9.5	1.0	56.8	45.6	74.0	54.0	-17.2	-8.4	H
Dist	Distance to Antenna						D Corr	Distance Correct to 3 meters				Pk Lim	Peak Field Strength Limit		
Read	Analyzer Reading						Avg	Average Field Strength @ 3 m				Avg Mar	Margin vs. Average Limit		
AF	Antenna Factor						Peak	Calculated Peak Field Strength				Pk Mar	Margin vs. Peak Limit		
CL	Cable Loss						HPF	High Pass Filter							