APPLICANT Symbol Technologies Inc One Symbol Plaza Holtsville, NY 11742	MANUFACTURER Same As Applicant

TEST SPECIFICATION: FCC Rules and Regulations Part 90

TEST PROCEDURE: TIA/EIA-603

TEST SAMPLE DESCRIPTION

BRANDNAME: Symbol

MODEL: N/A

TYPE: RFID Reader

POWER REQUIREMENTS: 115 VAC, 60 Hz

FREQUENCY OF OPERATION: 910.75 MHz to 920.75 MHz

TESTS PERFORMED

Para. 90.205(j) TIA/EIA-603;2.2.17, Effective Radiated Power Output

Para. 90.210(k)(3) TIA/EIA-603;2.2.12, Spurious Radiated Emissions

Para. 90.210(k)(3), Occupied Bandwidth

Para. 90.210(k)(3)(ii), Antenna Conducted Emissions

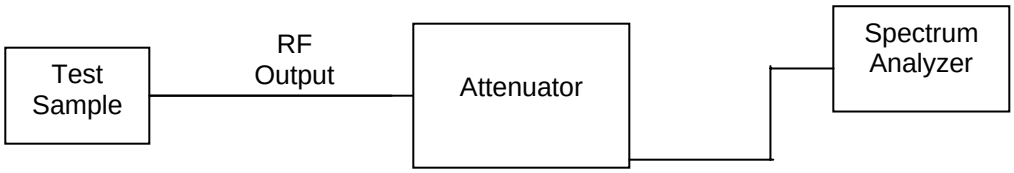
FCC Part 90.210(k)(3), Occupied Bandwidth Method

FCC Part 90.210(k)(3), Occupied Bandwidth

A. Measurement Procedure:

The RF output was directly coupled through external attenuators to a spectrum analyzer. The occupied bandwidth of the modulated RF carrier was then recorded and plotted. The modulated signal must be within the template as specified by the applicable paragraph in Part 90; Paragraph 90.210(k)(3), emission mask k.

Setup of the test is shown below:



B. Test Results:

The device complied with the requirements of this test method.

See the following three (3) test data sheets for a complete presentation of the test results obtained.

EQUIPMENT LIST

FCC Part 90.210(k)(3), Occupied Bandwidth

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due
068	Attenuator	Weinschel	DC - 18 GHz	48-30-43	2/3/2004	2/3/2005
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	8/5/2004	2/5/2005
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2/9/2004	2/9/2005
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	8/7/2004	2/7/2005
831	10 DB Atten. (50 ohm)	Narda	DC - 11 GHz, 20W	768-10	4/30/2004	4/30/2005

FCC Part 90.210(k)(3), Occupied Bandwidth
Test Data

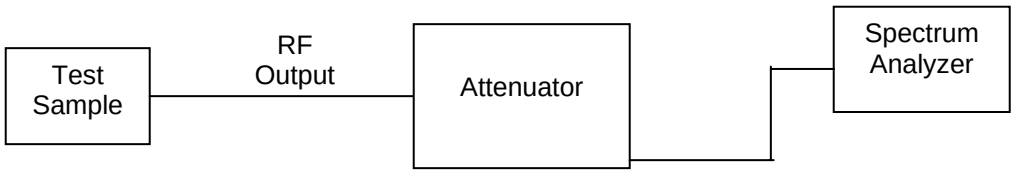
FCC Part 90.210(k)(3)(ii), Antenna Conducted Spurious Emissions Method

FCC Part 90.210(k)(3)(ii), Antenna Conducted Spurious Emissions

A. Measurement Procedure:

The RF output of the transmitter was directly coupled through attenuators to the input of a spectrum analyzer. With the transmitter on, the spectrum analyzer was swept from 30 MHz to 9.2 GHz. It was verified that all emissions not associated with the fundamental transmission were at least 55 +10 log (P) down from the fundamental transmit power level (P).

Setup of the test is shown below:



B. Test Results:

The device complied with the requirements of this method.

See the following twenty-one (21) test data sheets for a complete presentation of the test results obtained.

EQUIPMENT LIST

FCC Part 90.210(k)(3)(ii), Antenna Conducted Spurious Emissions

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due
068	Attenuator	Weinschel	DC - 18 GHz	48-30-43	2/3/2004	2/3/2005
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	8/5/2004	2/5/2005
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2/9/2004	2/9/2005
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	8/7/2004	2/7/2005
723	H.P. Filter	Mini-Circuits	1 GHz	BHP-1000	7/14/2004	7/14/2005
831	10 DB Atten. (50 ohm)	Narda	DC - 11 GHz, 20W	768-10	4/30/2004	4/30/2005

FCC Part 90.210(k)(3)(ii), Antenna Conducted Spurious Emissions
Test Data

TIA/EIA-603;2.2.12 and TIA/EIA-603;2.2.17
Output Power and Field Strength of Spurious Emissions, Effective Radiated Power Method

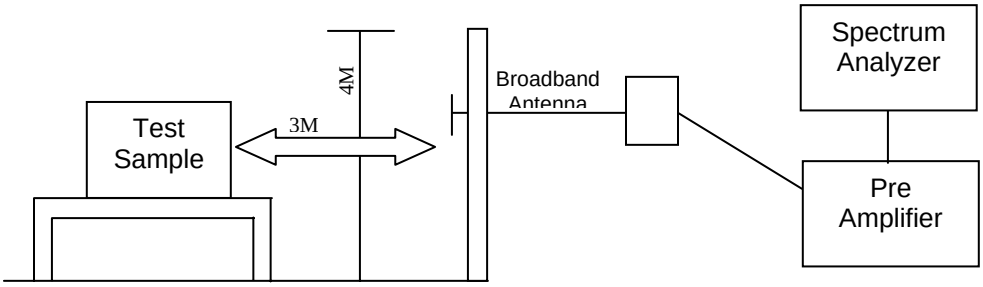
TIA/EIA-603;2.2.12 and TIA/EIA-603;2.2.17
Output Power and Field Strength of Spurious Emissions, Effective Radiated Power Method

A. Measurement Procedure:

The fundamental and spurious emissions of the transmitter from 30 MHz to 9.2 GHz were measured in accordance with TIA/EIA603, Paragraph 2.2.1.2 as described below:

The transmitter under test was placed on an 80-cm high non-metallic table on the Open Air Test Site with its antenna terminated into a shielded load. A receive antenna was placed three meters away from the transmitter. The turntable was rotated 360 degrees and the receive antenna was raised and lowered from 1 to 4 meters until a maximum reading was obtained at each spurious emission detected. This reading was recorded. The transmitter under test was replaced with a dipole (or equivalent antenna) and signal generator. The signal generator was set to the frequency for the spurious emission. The level of the signal generator was increased until the level was equal to that previously measured. The required input level from the signal generator in dBm was recorded and the antenna gain (in dB) of the transmit antenna was added. This was the Effective Radiated Power of the spurious emission. For the Fundamental Power output measurement the shielded load was replaced by the EUT's standard transmit antenna and the above procedure was repeated at the fundamental transmit frequency.

Setup of the test is shown below:



A. Test Results:

See the following two (2) test data sheets for a complete presentation of the test results obtained.

EQUIPMENT LIST

TIA/EIA-603;2.2.12-Spurious Radiated Emissions

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due
067	Open Area Test Site	Retlif	3 Meter	RNY	10/1/2003	10/1/2006
128	Double Ridged Guide	Electro-Mechanics	1 GHz - 18 GHz	3105	6/21/2004	6/21/2005
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/12/2004	6/12/2005
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	8/5/2004	2/5/2005
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	8/7/2004	2/7/2005
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	6/12/2004	6/12/2005
399	Log Periodic Antenna	Antenna Research	1 GHz - 12 GHz	LPD-112	9/29/2004	9/29/2005
451C	Tuned Dipole Antenna	Empire Devices	400 - 1000 MHz	DM-105-T3	8/12/2003	8/12/2006
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	7/27/2004	7/27/2005
711	Microwave Sweeper	Gigatronics	500 MHz - 20 GHz	GT9000S/.5-20	10/15/2004	10/15/2005
723	H.P. Filter	Mini-Circuits	1 GHz	BHP-1000	7/14/2004	7/14/2005
762	AM/FM Signal Generator	Marconi Instru.	10 kHz - 1.2 GHz	2023	7/23/2004	7/23/2005
767	Biconilog	EMCO	26 - 2000 MHz	3142B	10/7/2004	10/7/2005
832	20 dB Attenuator	Narda	DC - 11 GHz, 20W	768-20	4/30/2004	4/30/2005
834	30 dB Attenuator	Narda	DC - 11 GHz, 20W	768-30	4/30/2004	4/30/2005

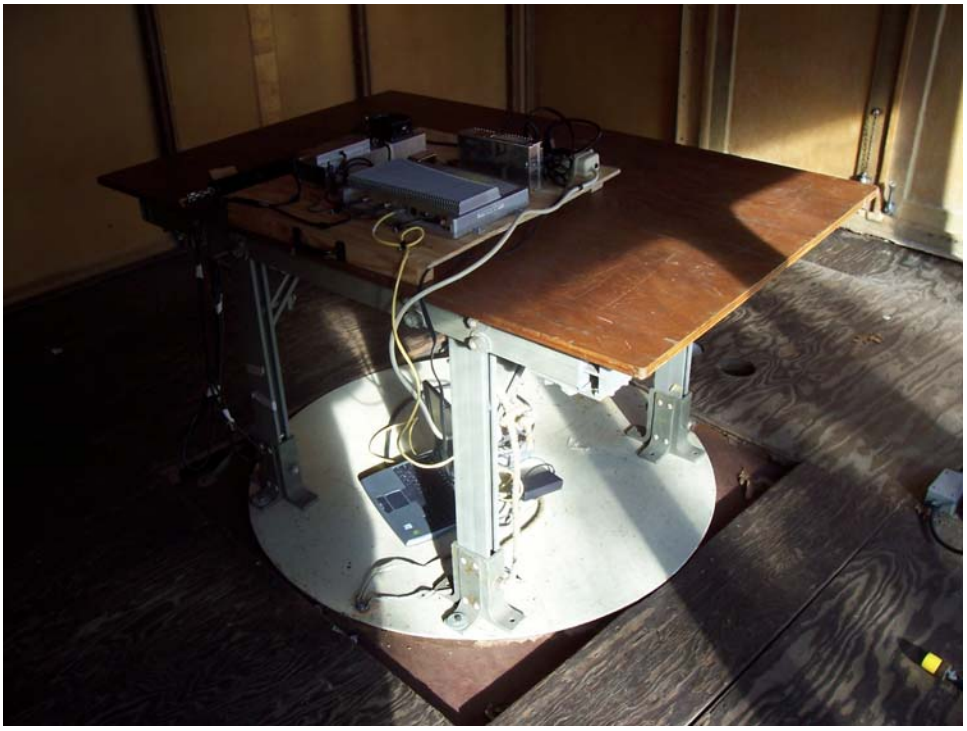
EQUIPMENT LIST

TIA/EIA-603;2.2.17-Effective Radiated Power Output

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due
067	Open Area Test Site	Retlif	3 Meter	RNY	10/1/2003	10/1/2006
068	Attenuator	Weinschel	DC - 18 GHz	48-30-43	2/3/2004	2/3/2005
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/12/2004	6/12/2005
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	8/5/2004	2/5/2005
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	8/7/2004	2/7/2005
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	6/12/2004	6/12/2005
333	Attenuator	Narda	DC - 11 GHz	768-10	7/30/2004	7/30/2005
648	Power Meter	Boonton Electronics	10 kHz - 100 GHz	4232A	1/13/2004	1/13/2005
649	Power Sensor	Boonton Electronics	10 kHz - 8 GHz	51011-EMC	12/3/2003	12/3/2004
742	Amplifier	Amplifier Research	80 - 1000 MHz/250W	250W1000	2/9/2004	2/9/2005
762	AM/FM Signal Generator	Marconi Instru.	10 kHz - 1.2 GHz	2023	7/23/2004	7/23/2005
767	Biconilog	EMCO	26 - 2000 MHz	3142B	10/7/2004	10/7/2005
831	10 DB Atten. (50 ohm)	Narda	DC - 11 GHz, 20W	768-10	4/30/2004	4/30/2005
451C	Tuned Dipole Antenna	Empire Devices	400 - 1000 MHz	DM-105-T3	8/12/2003	8/12/2006

Output Power and Field Strength of Spurious Emissions, Effective Radiated Power Method
Test Data

TEST SETUP PHOTOGRAPHS



TEST SETUP PHOTOGRAPHS