

7 RADIATED EMISSIONS DATA

7.1 Radiated Emissions Test Procedure

This test procedure was conducted in accordance with the Radiated Emissions Test Procedure SOP-0152, in accordance with FCC/OET MP-5 (1986).

The radiated emissions were measured using two steps:

Preliminary measurements were performed with a spectrum analyzer scanning with peak detection and the appropriate receiver bandwidths for the frequency ranges covered. These initial, qualitative, surveys of emissions were performed in a shielded semi-anechoic chamber. For this step, the frequency range was divided into sub-ranges, and a separate scan was taken for each. These measurements were performed for the horizontal and vertical receiving antenna polarities. Measurements were made while the EUT was rotated about its vertical axis through a 360 degree azimuth, each frequency range was continuously swept, and the maximum emission levels recorded.

The scans for each polarity and frequency range were plotted. Any peak signal that approached the limit was further investigated in the chamber to determine if measurements would be needed in the open area test site (OATS). All signals were identified as either being ambient signals getting into the chamber or were transients. Since the emissions identified was more than 6 dB below the normalized 3 meter limit at the worst case azimuth, radiated measurements in the OATS were not considered necessary.

7.2 Field Strength Calculations

7.2.1 The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain, if any, from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CF - AG, \text{ where}$$

FS = Field Strength

RA = Receiver Amplitude

AF = Antenna Factor

CF = Cable Attenuation Factor

AG = Amplifier Gain

Assume a logarithmic reading of 52.5 dB(μV) is obtained. The Antenna Factor of 7.4 and a Cable Factor of 1.1 is added. The Amplifier Gain of 29 dB is subtracted, giving a field strength of 32 dB(μV)/m. The 32 dB(μV)/m was mathematically converted to its corresponding linear level in μV/m:

$$FS = 52.5 + 7.4 + 1.1 - 29 = 32 \text{ dB}(\mu\text{V})/\text{m}$$

$$\text{Level in } \mu\text{V}/\text{m} = \text{Common Antilogarithm } [(32 \text{ dB}(\mu\text{V})/\text{m})/20] = 39.8 \mu\text{V}/\text{m}$$

7.3 Radiated Emissions Test Results

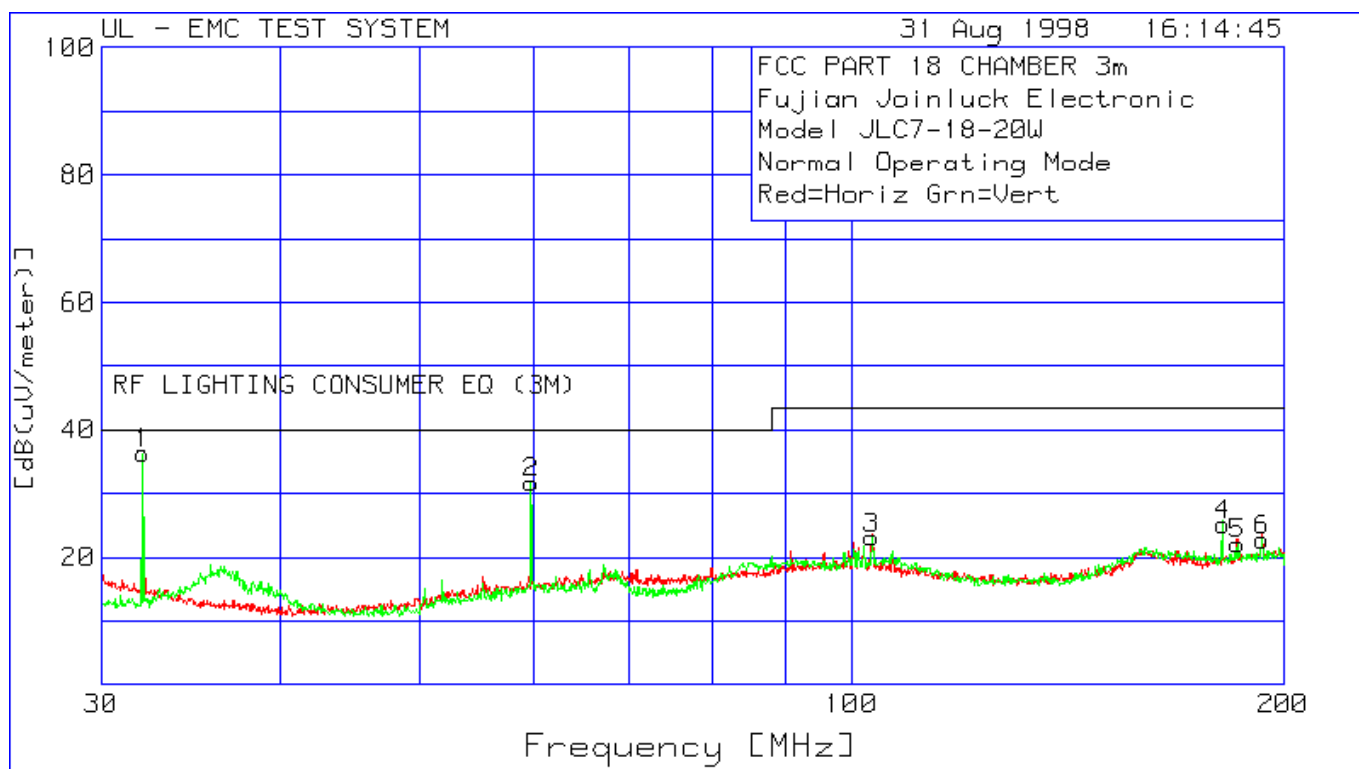
The emissions measurements made in this configuration represent the worst case emissions for this system. The preliminary peak scans for each frequency span and antenna orientation are provided on the following pages. Emissions thought to require quasi-peak measurements are marked numerically. Other emissions may also be marked.

Since all the marked signals were verified as ambients, no OATS measurements were considered necessary, final quasi-peak compliance data for each marked trace frequency is not provided. The peak measurements that were marked on the traces are, however, provided on separate sheets following the peak scans. The test date the data was recorded is provided on each scan.

7.4 Radiated Emissions Test Data

MEASUREMENT OF RADIATED EMISSIONS - ELECTRIC FIELD PRECOMPLIANCE, 3M CHAMBER SCAN

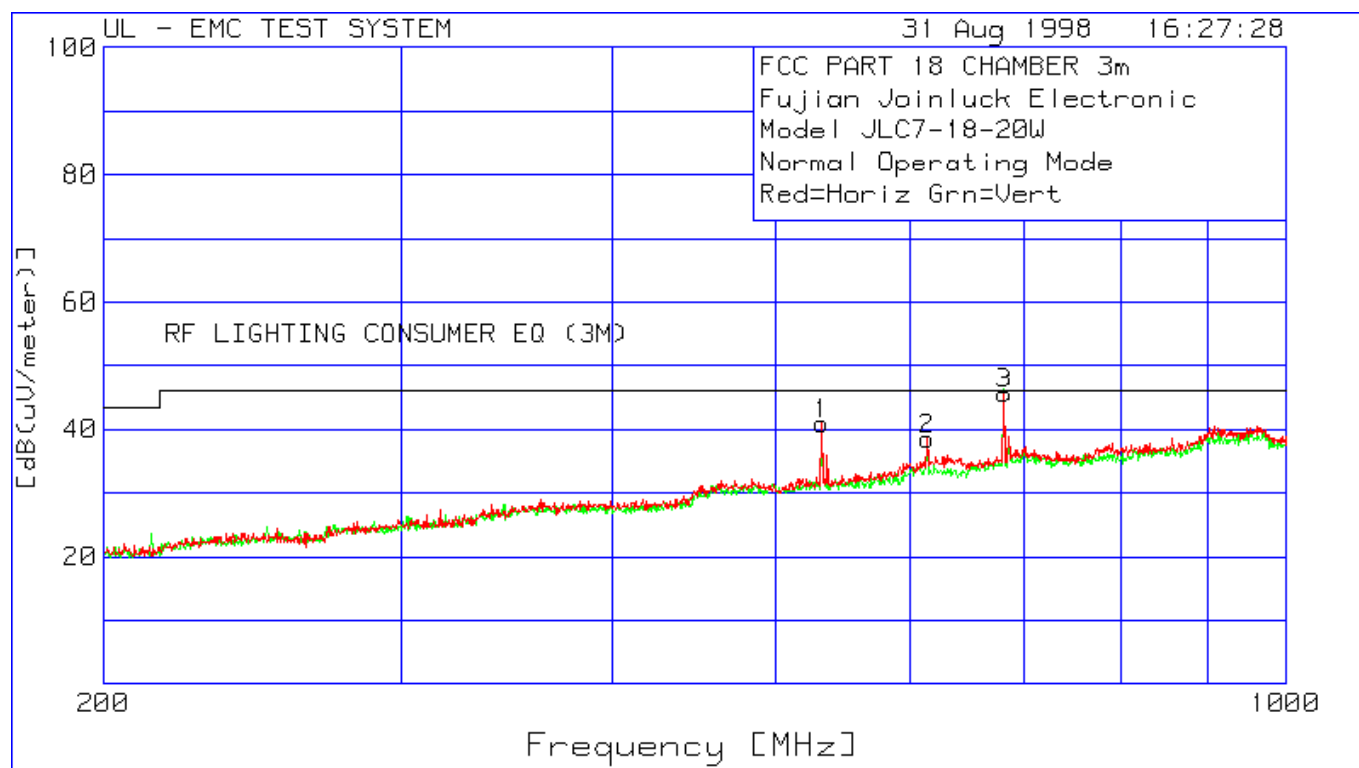
Temp./Humidity/Atm. Pressure : 23 °C/ 58 %RH/ 29.5 in Hg
Manufacturer : Fujian Joinluck Electronic Enterprise Co., Ltd.
Equipment Under Test (EUT) : Model JLC7-18 20W Fluorescent lampholder adaptor; self ballasted lamp
Operating Mode : Energized with lamp on.
Basic Standard/Class : CFR Title 47, PT. 18 / Class B
Detection Mode : Peak (pk)
Bandwidth : 100 kHz for measurements from 30 to 1000 MHz
Compliance Measurement Distance : 3 meters.



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MEASUREMENT OF RADIATED EMISSIONS - ELECTRIC FIELD PRECOMPLIANCE, 3M CHAMBER SCAN

Temp./Humidity/Atm. Pressure : 23 °C/ 58 %RH/ 29.5 in Hg
Manufacturer : Fujian Joinluck Electronic Enterprise Co., Ltd.
Equipment Under Test (EUT) : Model JLC7-18 20W Fluorescent lampholder adaptor; self ballasted lamp
Operating Mode : Energized with lamp on.
Basic Standard/Class : CFR Title 47, PT. 18 / Class B
Detection Mode : Peak (pk)
Bandwidth : 100 kHz for measurements from 30 to 1000 MHz
Compliance Measurement Distance : 3 meters.



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MEASUREMENT OF RADIATED EMISSIONS - ELECTRIC FIELD

Temp./Humidity/Atm. Pressure : 23 °C/ 58 %RH/ 29.5 in Hg
Manufacturer : Fujian Joinluck Electronic
 Enterprise Co., Ltd.
Equipment Under Test (EUT) : Model JLC7-18 20W Fluorescent lampholder adaptor; self
 ballasted lamp
Operating Mode : Energized with lamp on.
Basic Standard/Class : CFR Title 47, PT. 18 / Class B
Detection Mode : Peak (pk)
Bandwidth : 100 kHz for measurements from 30 to 1000 MHz
Compliance Measurement Distance : 3 meters.

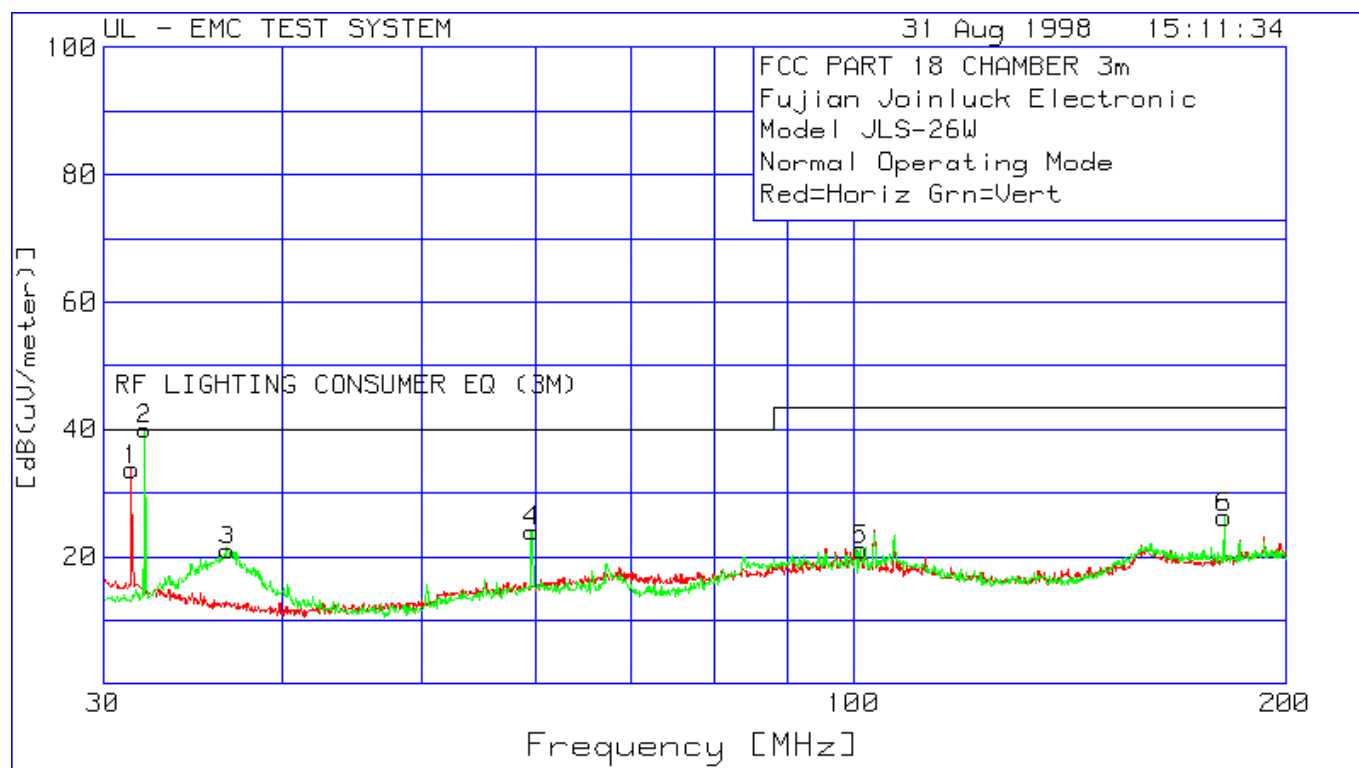
Frequency MHz	Meter Reading dBmV/m	Cable Loss dB	Antenna Factor dB	Measured Intensity dBmV/m	3 meter Limit dBmV/m	Margin	Antenna Type
32.05790	30.40 pk	1.20	4.70	36.30 A	40.00	-3.7	BcnLg-V
59.76090	23.80 pk	1.60	6.30	31.70 A	40.00	-8.3	BcnLg-V
103.30300	10.70 pk	2.10	10.30	23.10 A	43.50	-20.4	BcnLg-V
181.44260	12.10 pk	2.70	10.40	25.20 A	43.50	-18.3	BcnLg-H
185.83970	8.70 pk	2.80	10.60	22.10 A	43.50	-21.4	BcnLg-V
193.31480	9.00 pk	2.90	10.90	22.80 A	43.50	-20.7	BcnLg-V
531.72260	16.40 pk	5.10	19.40	40.90 A	46.00	-5.1	BcnLg-H
614.10120	11.70 pk	5.60	21.20	38.50 A	46.00	-7.5	BcnLg-H
681.78750	18.00 pk	5.80	21.80	45.60 A	46.00	-0.4	BcnLg-H

Notes:

H -Horizontal antenna polarity
 V -Vertical antenna polarity
 Bcn -Biconnical antenna
 Lgp -Log periodic antenna
 BcnLg -Biconilog antenna
 A -Marked traces are verified ambients signals

MEASUREMENT OF RADIATED EMISSIONS - ELECTRIC FIELD PRECOMPLIANCE, 3M CHAMBER SCAN

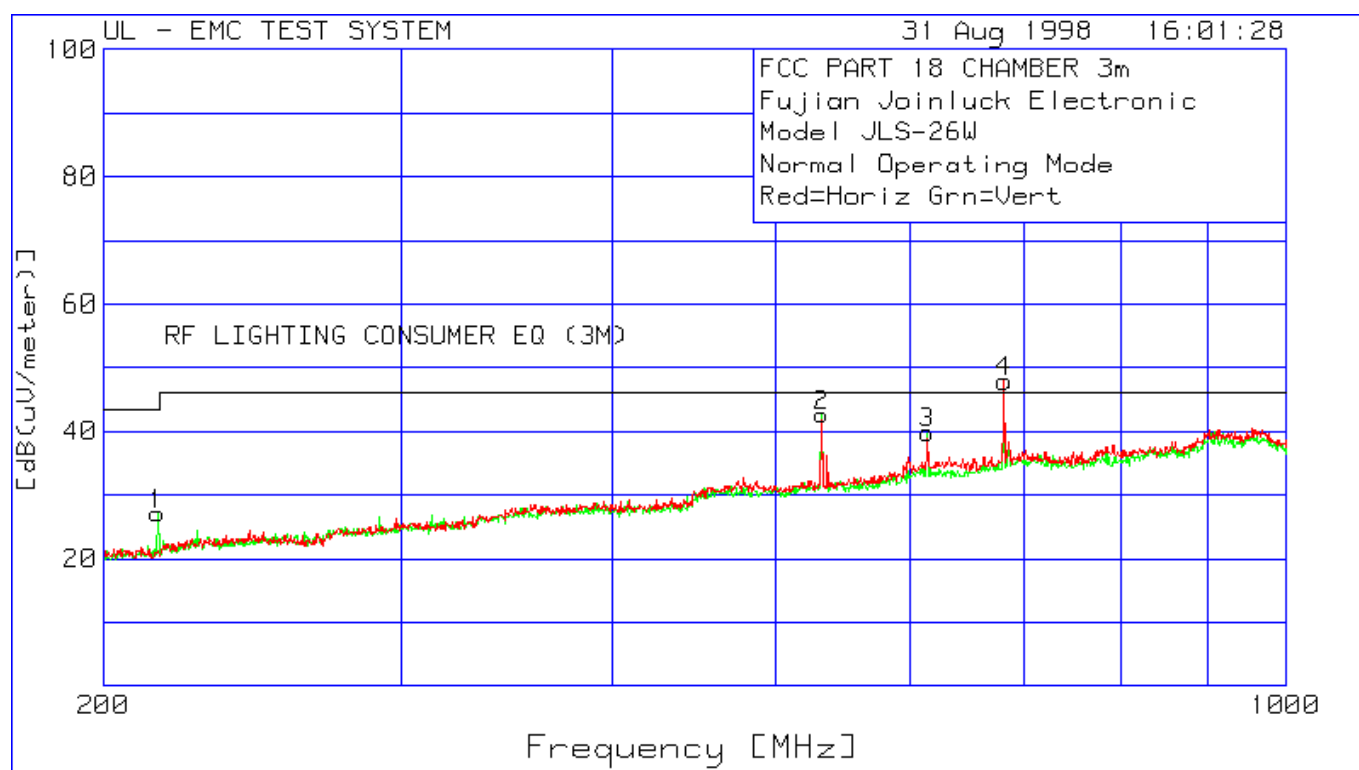
Temp./Humidity/Atm. Pressure : 23 °C/ 58 %RH/ 29.5 in Hg
Manufacturer : Fujian Joinluck Electronic Enterprise Co., Ltd.
Equipment Under Test (EUT) : Model JLS 26W Fluorescent lampholder adaptor; self ballasted lamp
Operating Mode : Energized with lamp on.
Basic Standard/Class : CFR Title 47, PT. 18 / Class B
Detection Mode : Peak (pk)
Bandwidth : 100 kHz for measurements from 30 to 1000 MHz
Compliance Measurement Distance : 3 meters.



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MEASUREMENT OF RADIATED EMISSIONS - ELECTRIC FIELD PRECOMPLIANCE, 3M CHAMBER SCAN

Temp./Humidity/Atm. Pressure : 23 °C/ 58 %RH/ 29.5 in Hg
Manufacturer : Fujian Joinluck Electronic Enterprise Co., Ltd.
Equipment Under Test (EUT) : Model JLS 26W Fluorescent lampholder adaptor; self ballasted lamp
Operating Mode : Energized with lamp on.
Basic Standard/Class : CFR Title 47, PT. 18 / Class B
Detection Mode : Peak (pk)
Bandwidth : 100 kHz for measurements from 30 to 1000 MHz
Compliance Measurement Distance : 3 meters.



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MEASUREMENT OF RADIATED EMISSIONS - ELECTRIC FIELD

Temp./Humidity/Atm. Pressure : 23 °C/ 58 %RH/ 29.5 in Hg
Manufacturer : Fujian Joinluck Electronic Enterprise Co., Ltd.
Equipment Under Test (EUT) : Model JLS 26W Fluorescent lampholder adaptor; self ballasted lamp
Operating Mode : Energized with lamp on.
Basic Standard/Class : CFR Title 47, PT. 18 / Class B
Detection Mode : Quasi-peak (qpk) or Peak (pk)
Bandwidth : 100 kHz for measurements from 30 to 1000 MHz
Compliance Measurement Distance : 3 meters.

Frequency MHz	Meter Reading dBmV/m	Cable Loss dB	Antenna Factor dB	Measured Intensity dBmV/m	3 meter Limit dBmV/m	Margin	Antenna Type
31.37190	24.40 pk	1.20	8.10	33.70 A	40.00	-6.3	BcnLg-H
32.05790	34.10 pk	1.20	4.70	40.00 A	40.00	0.0	BcnLg-V
36.61480	15.60 pk	1.30	4.10	21.00 A	40.00	-19	BcnLg-V
59.66820	16.10 pk	1.60	6.30	24.00 A	40.00	-16	BcnLg-V
101.13160	8.90 pk	2.00	10.20	21.10 A	43.50	-22.4	BcnLg-V
181.22280	13.10 pk	2.70	10.40	26.20 A	43.50	-17.3	BcnLg-V
215.19440	12.60 pk	3.10	11.40	27.10 A	43.50	-16.4	BcnLg-V
531.72260	18.40 pk	5.10	19.10	42.60 A	46.00	-3.4	BcnLg-V
614.10120	14.20 pk	5.60	20.00	39.80 A	46.00	-6.2	BcnLg-V
681.78750	20.30 pk	5.80	21.80	47.90 A	46.00	1.9	BcnLg-H

Notes:

H -.....Horizontal antenna polarity
 V -.....Vertical antenna polarity
 Bcn -Biconnical antenna
 Lgp -Log periodic antenna
 BcnLg -Biconilog antenna
 A -.....Marked traces are verified ambients signals