



166 South Carter, Genoa City, WI 53128

Company:
Model Tested:
Certification Exhibit:

Kenall Manufacturing
L-3805
RF Exposure

FCC Code of Federal Regulations 47 Part 1.1307(b) (1)

RF Exposure Statement of Compliance

THE FOLLOWING MEETS THE ABOVE TEST SPECIFICATION

Formal Name:	Kenall TekLink 915 MHz Radio Transceiver Module
Kind of Equipment:	IEEE 802.15.4 Radio Transceiver module
Frequency Range:	906-924 MHz
Test Configuration:	DC powered transceiver module
Model Number(s):	L-3805
Model(s) Tested:	L-3805
Serial Number(s):	0001
Date of Tests:	November 15 th , 2016
Test Conducted For:	Kenall Manufacturing 10200 55 th Street Kenosha, WI 53144-4601, USA



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Transmitter Information:

Maximum Conducted Output Power:	24.09 dBm (256 mW)
Maximum Effective Isotropic Radiated Power	25.89 dBm
Frequency:	906 MHz
Antenna Type:	Quarter wave with counterpoise – or – PCB quarter wave
Antenna Gain:	1.8 dBi (same for both antenna options)

Exposure Limit:

Maximum Permissible Exposure (MPE) limit for General Population / Uncontrolled Exposure in the frequency range 300 – 1,500 MHz (ref: 47 CFR Part 1.1310 Table 1(b))

Limit: (S) (mW/cm²) = $f/1500 \text{ mW/cm}^2$, where f = frequency in MHz
Limit = $(906/1500) \text{ mW/cm}^2 = \mathbf{0.604 \text{ mW/cm}^2}$

MPE Calculation:

Power Density (mW/cm²):

$$S = \frac{PG}{4\pi R^2}$$

S = Power Density (mW/cm²)

P = Power Input to the antenna (mW)

G = Numeric Power Gain of the antenna

R = Distance to the center of the radiation of the antenna (cm)



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Results:

RF Exposure Calculation								
	Input							
Frequency =	906	MHz						
P =	24.09	dBm						
G =	1.8	dBi						
R =	20	cm						
π	3.14159							
Transmit Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Power Density (mW/cm ²)	Power Density Limit (mW/cm ²)	Margin
906	24.09	256.44840	1.8	1.51356	20	0.0772	0.6	0.527

Summary of Results:

With a minimum separation distance of 20 centimeters as defined by FCC 2.1091(b), for a mobile device, the Kenall Manufacturing Kenall TekLink 915 MHz Radio Transceiver Module **meets** the RF exposure evaluation requirements for maximum permissible exposure to any radiating structure and the general population / uncontrolled exposure.

Conclusion:

The Kenall Manufacturing Kenall TekLink 915 MHz Radio Transceiver Module operating under FCC part 15.247 complies with the requirements of FCC Part 1.1307(b)(1) for RF Exposure Evaluation.

Supporting data to follow...



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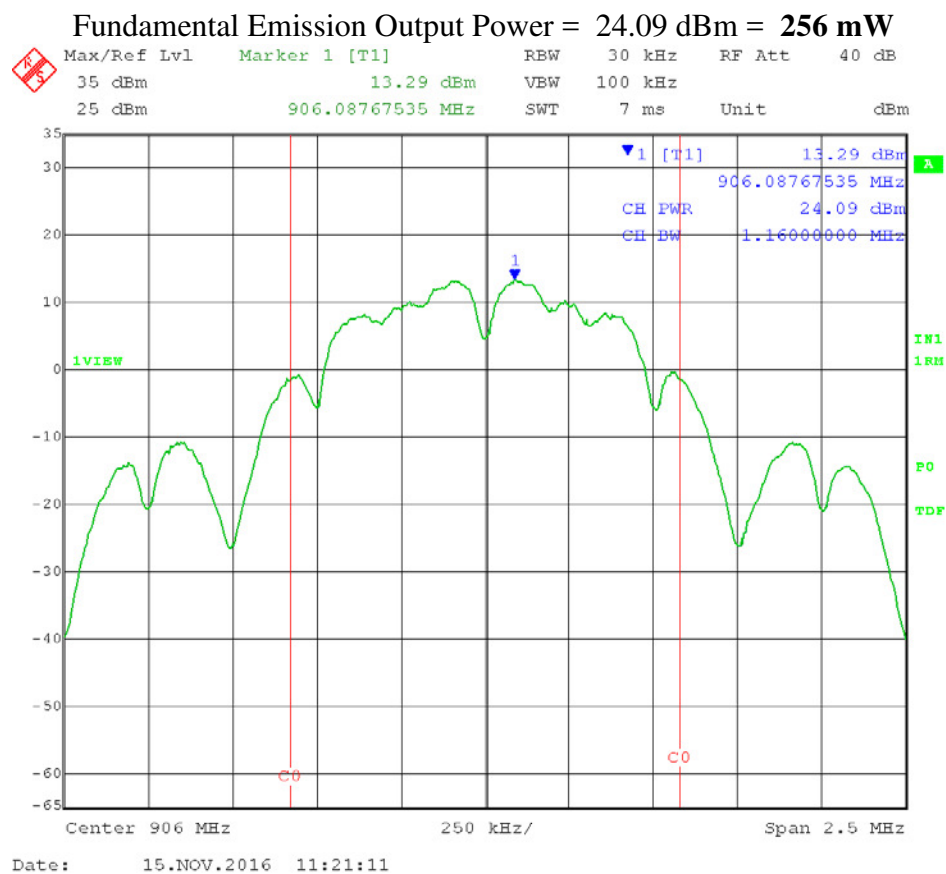
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Test Date: 11-15-2016
Company: Kenall
EUT: Link900G1
Test: Fundamental Emission Output Power - Conducted
Operator: Craig B

Comment: Method AVGSA-1 – maximum conducted (average) output power
SPAN 1.5 x OBW
RBW = 1% to 5% OBW
VBW $\geq 3 \times$ RBW
Sweep = auto couple
Detector = RMS
Trace = average 200 traces
Integrate power over OBW

Comment: Low channel: Frequency – 906 MHz
Output power setting 21

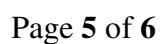




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SPAN 1.5 x OBW
RBW = 1% to 5% OBW
VBW $\geq$ 3 x RBW
Sweep = auto couple
Detector = RMS
Trace = average 200 traces
Integrate power over OBW

Comment: Mid channel: Frequency – 914 MHz
Output power setting 21





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Comment: Method AVGSA-1 – maximum conducted (average) output power
SPAN 1.5 x OBW
RBW = 1% to 5% OBW
VBW $\geq 3 \times$ RBW
Sweep = auto couple
Detector = RMS
Trace = average 200 traces
Integrate power over OBW

Comment: High channel: Frequency – 924 MHz
Output power setting 21

