

12. TEST RESULT

Powerline RFI Class B	Eut	Radiated Emission Limits	Eut
SECTION 15.207		SECTION 15.209	X
SECTION 15.205, 15.209, 15.221, 15.223, x 15.225 OR 15.227		SECTION 15.205	
BATTERY POWER	X	SECTION 15.231 (b)	X
		SECTION 15.231 (e)	

12.1 Maximum Modulation Percentage (M%)

CALCULATION:

Average Reading = Peak Reading (dBuV/m)+ 20log (Duty Cycle)

In order to determine possible Maximum Modulation percentage, alternations are made to the EUT. We measured:

WHERE 1 Period = 106.88 mS > 100mS. Use 100mS for calculation.
 Long pulse = 1.3 mS
 Short pulse = 0.5 mS
 No of Long pulse = 15
 No of Short pulse = 22

$$\text{Duty Cycle} = (N1L1 + N2L2 + \dots + Nn-1Ln-1 + NnLn) / 100 \text{ or } T$$

$$\text{Duty Cycle} = ((15 \times 1.3) + (22 \times 0.5)) / 100 = 0.3050 = 30.50\% \text{ or } -10.314\text{dB}$$
12.2 The Emissions Bandwidth

The bandwidth of the emissions were investigated per 15.231(c)

Center Frequency	Measured	Limits
302 MHz	424.4 kHz < (refer to plot)	302X0.25%=755 kHz