

Chris Harvey

From: Alice Wong [alice_wong@hkstc.com]
Sent: Tuesday, April 10, 2001 6:39 AM
To: charvey@metlabs.com
Cc: EED - Choy, Kitty
Subject: MET #10739 FCC ID: M8Q3250027 "Ngai Keung Metal & Plastic Manufactory Ltd."

Dear Chris,

1) Please see attached file "bandwidth" for spectral plots.
2) Duty cycle correction during 100 msec:
Each function key sends a different series of characters, but each packet period (17.125 msec) never exceeds a series of 4 long (1.375 msec) and 10 short (375usec) pulses. Transmit duty cycle would be considered $(4 \times 1.375 \text{ msec}) + (10 \times 375 \text{ usec})$ per 17.125 msec = 54%.
Duty cycle correction = $20 \log (0.54) = -5.3\text{dB}$
Figure A to C show the characteristics of the pulse for one of these functions. (See attached file "pulse")
Thanks.

Best Regards
Alice

> > Ngai Keung FCC ID: M8Q3250027 MET#10739
> >
> > RC Toy Transmitter (DXX) ... 27.145 MHz ... Section 15.227
> >
> > 1. Please provide spectral plots wide enough to show both the upper and
> > lower bandedges (26.96 MHz and 27.28 MHz) that
> > demonstrate bandedge compliance. The FCC prefers spectral plots rather
> > than tabular data indicating emission levels at the
> > bandedges.
> >
> > 2. Radiated test data indicates a 10 dB difference between the measured
> > peak and average field strength levels. What type of
> > modulation is employed? If pulsed, measurements with an average
> > detector are not permitted. Instead, the peak level is
> > measured, and then the average level is mathematically calculated, based
> > on the duty cycle. If this is the case, please provide
> > time domain plots so that the duty cycle correction factor may be
> > calculated. If the emission is not pulsed, please explain why
> > there is such a large peak to average ratio, since the plots indicate
> > that the emission is narrower than the measurement bandwidth
> > of 100 kHz specified by the test procedure (ANSI C63.4).
> >

