

PMP8005

PMP8005 Test Results



Literature Number:SNVU134

Experimental Results

Electrical Performance

The performances of the LED driver for driving 7 LEDs in series at steady state operation are summarized in the following table.

V_{IN} (VAC)	I_{IN} (A)	f_{LINE} (Hz)	P_{IN} (W)	PF	V_{OUT} (V)	I_{OUT} (A)	P_{OUT} (W)	η_{SYS} (%)
198	0.044	50	8.24	0.944	19.83	0.352	6.98	84.7
200	0.044	50	8.23	0.943	19.82	0.352	6.98	84.8
210	0.042	50	8.27	0.935	19.81	0.354	7.01	84.7
220	0.041	50	8.32	0.928	19.80	0.355	7.04	84.6
230	0.040	50	8.38	0.920	19.80	0.357	7.07	84.3
240	0.038	50	8.42	0.913	19.79	0.359	7.10	84.3
250	0.037	50	8.49	0.905	19.79	0.360	7.13	83.9
264	0.036	50	8.57	0.893	19.78	0.362	7.16	83.6

Table 1. Electrical performance

Normal Operation Waveforms

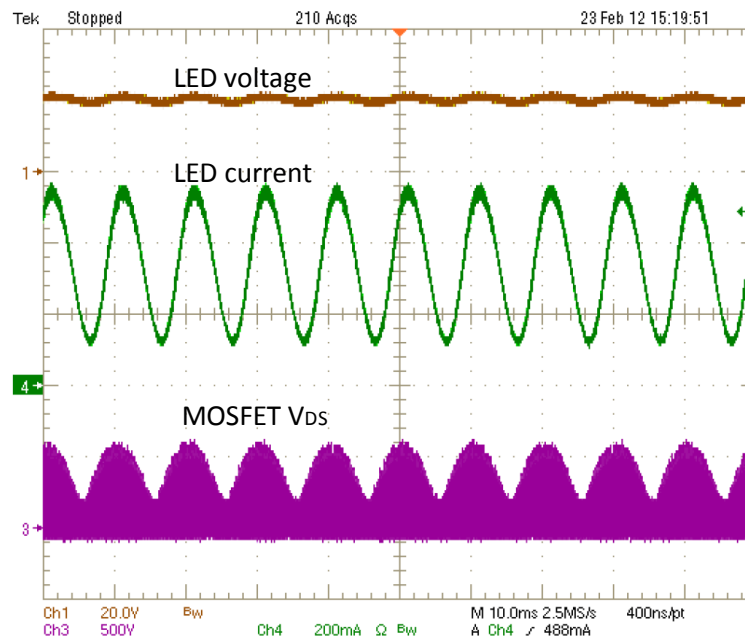


Figure 1. Waveforms at 230VAC input voltage and 50Hz line frequency with 10ms/div time base

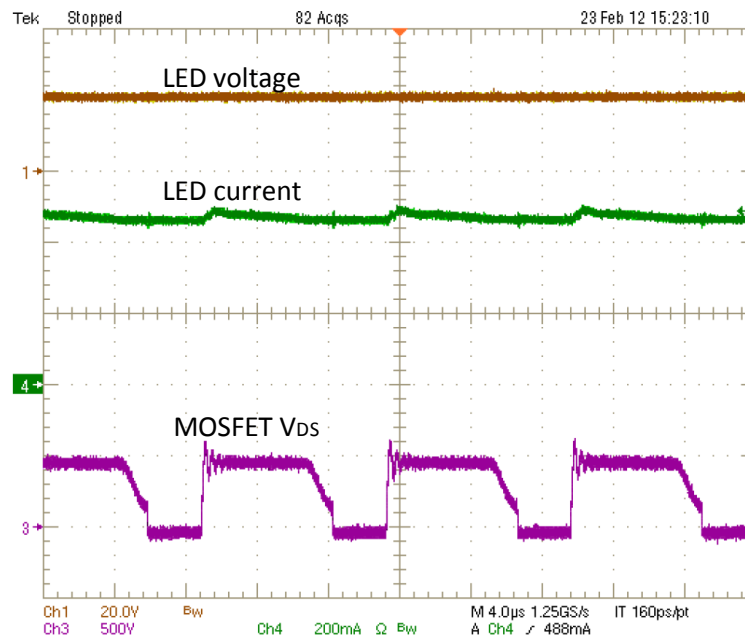


Figure 2. Waveforms at 230VAC input voltage and 50Hz line frequency with 4us/div time base

Radiated EMI Test Reports

E-FIELD

Test Spec./ Std EN55015
Ant. Pol./ h/ Range HORI./ HEIGHT=3.0M / RANGE=10.0M
Operation Condition
LIGHT ON MODE; 230V 50Hz

Time Domain Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 300 MHz
Detector: Trace 1: MAX PEAK
Transducer: E_30_300

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	300.000000 MHz	30.00 kHz	120.00 kHz	100 µs	Auto	20 dB	INPUT1

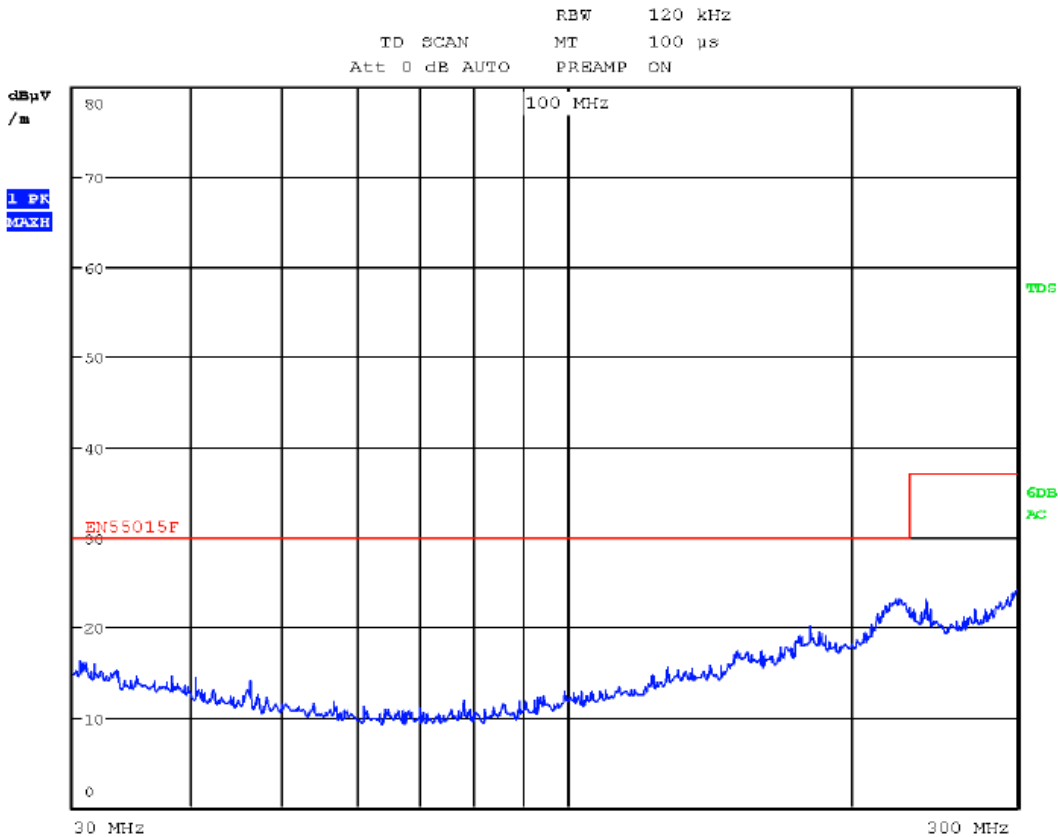


Figure 3. Test result with horizontal antenna Pol.

E-FIELD

Test Spec./ Std EN55015
Ant. Pol./ h/ Range VERT./ HEIGHT=1.0M / RANGE=10.0M
Operation Condition
LIGHT ON MODE; 230V 50Hz

Time Domain Scan (1 Range)

Scan Start: 30 MHz
Scan Stop: 300 MHz
Detector: Trace 1: MAX PEAK
Transducer: E_30_300

Start Frequency	Stop Frequency	Step Size	Res BW	Meas Time	RF Atten	Preamp	Input
30.000000 MHz	300.000000 MHz	30.00 kHz	120.00 kHz	100 μ s	Auto	20 dB	INPUT1

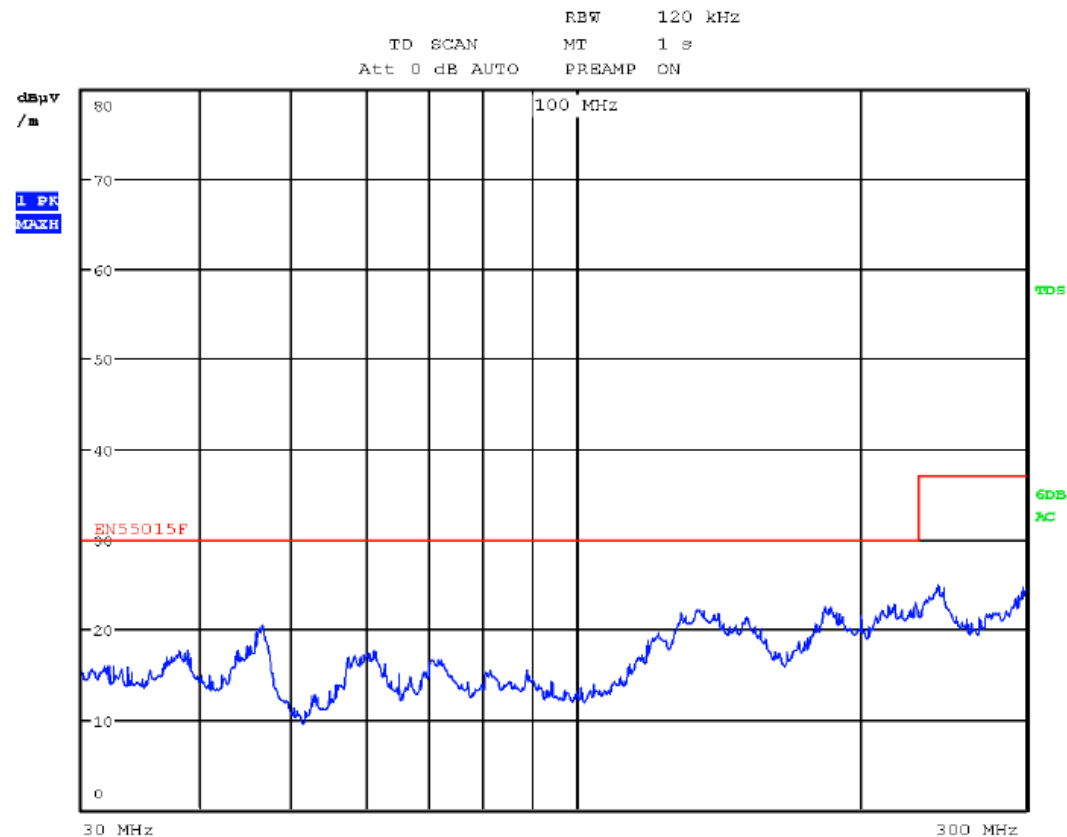


Figure 4. Test result with vertical antenna Pol.

Current Harmonic Performance Vs. EN/IEC61000-3-2 Class C limits

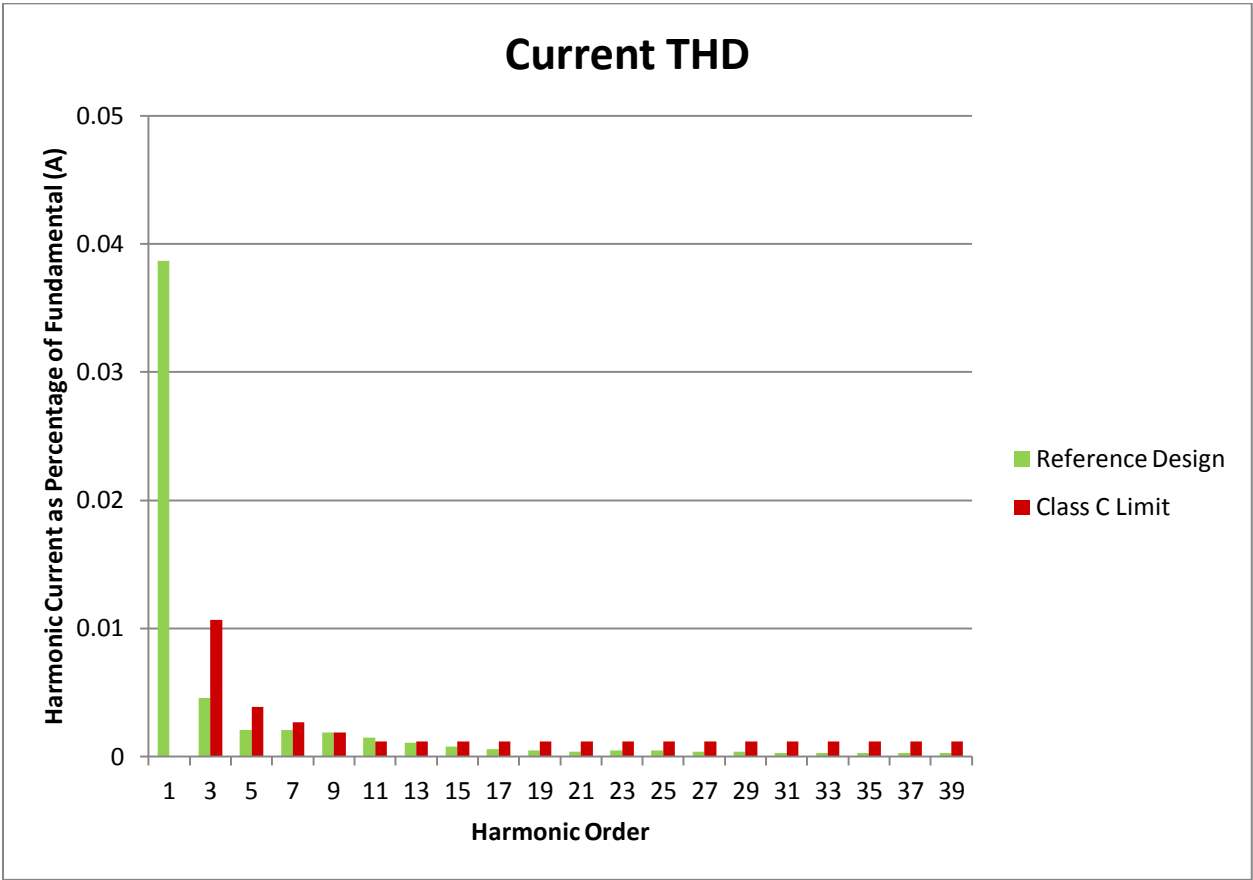


Figure 5. Current THD at 230VAC input voltage and 50Hz line frequency

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