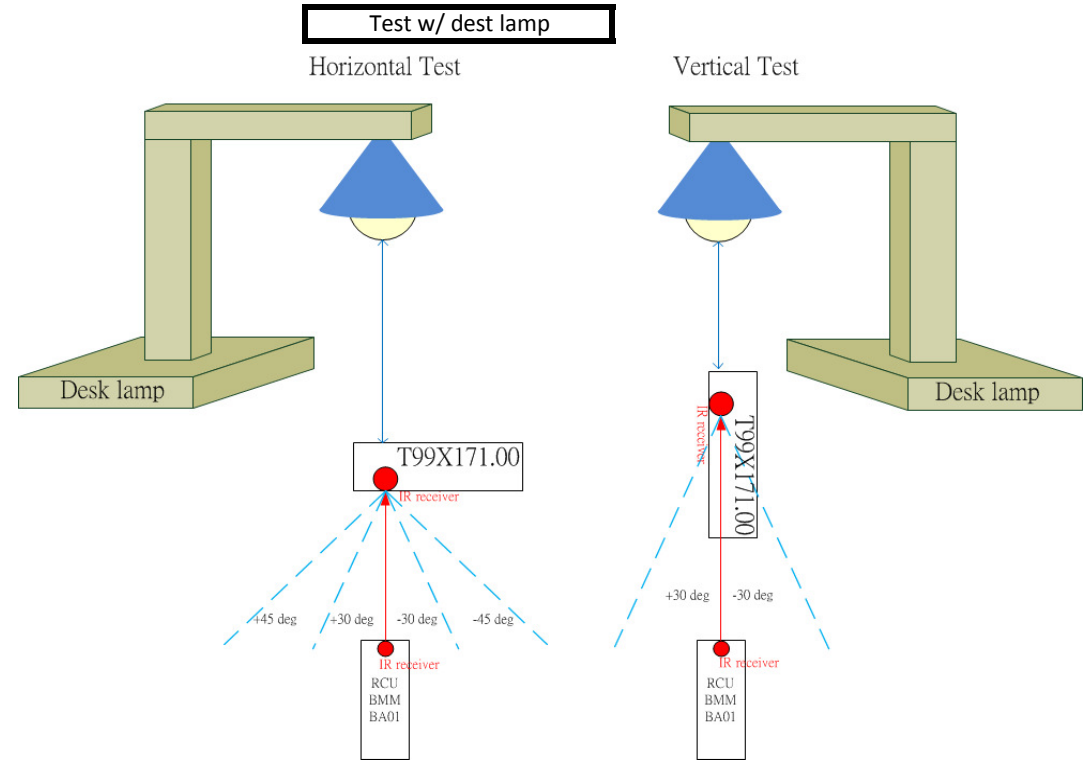
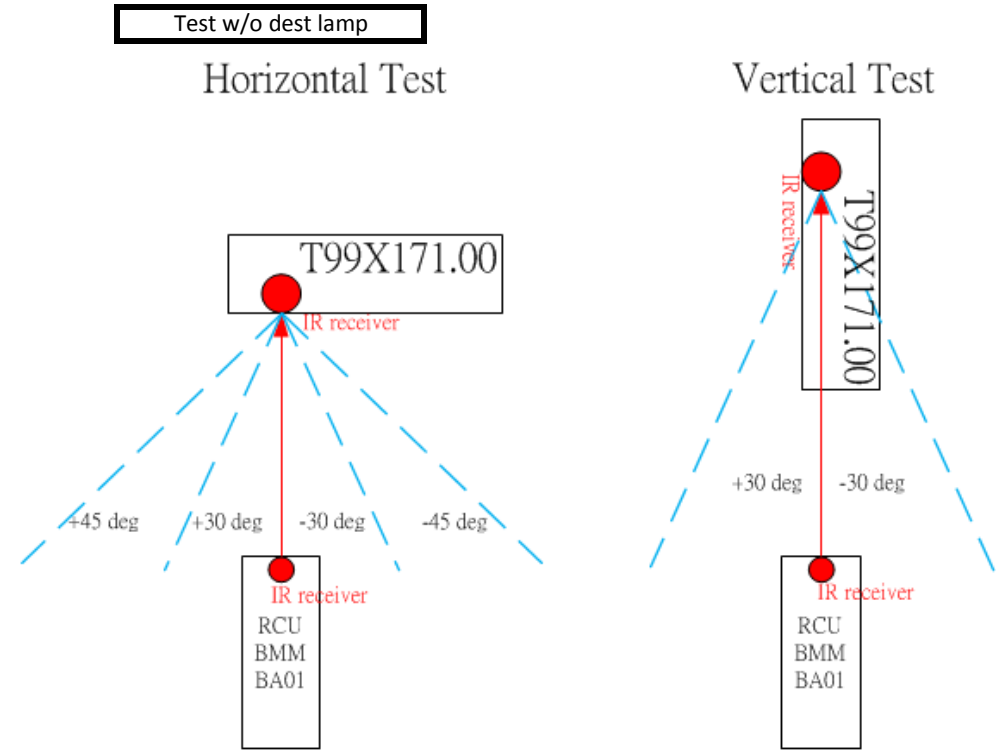


IR test			
Equipment: Monitor x 1, DUT x 1, adapter x 1, remote control BMM-BA01, HDMI cable x1, table lamp x1.			
Criteria: DUT MUST be able to receive and acknowledge commands transmitted by the Remote Control at a distance of 10M in 0 deg/30 deg and 7M in 45 deg			
Note: Currently Eagle board is tested without housing			
Result:	PASS		



1. Test Result

Test Item	W/O desk lamp		W/ desk lamp	
Nearby: >=20cm	>=20cm	Pass	>=20cm	Pass
Horizontal: +45°	15.6m	Pass	15.6m	Pass
Horizontal: +30°	15.6m	Pass	15.6m	Pass
Horizontal: 0°	15.6m	Pass	15.6m	Pass
Horizontal: -30°	15.6m	Pass	15.6m	Pass
Horizontal: -45°	15.6m	Pass	15.6m	Pass
Vertical: +30°	15.6m	Pass	15.6m	Pass
Vertical: 0°	15.6m	Pass	15.6m	Pass
Vertical: -30°	15.6m	Pass	15.6m	Pass

1.1 Horizontal Deflection

	Azimuth: +45°	Azimuth: +30°	Azimuth: 0°	Azimuth: -30°	Azimuth: -45°
Available Receiver Distance (meter)	>7M	>10M	>10M	>10M	>7M

1.2 Vertical Deflection

	Elevation +30°	Elevation 0°	Elevation -30°
Available Receiver Distance (meter)	>10M	>10M	>10M

1.3 Component Specification Analysis

Component Specification Compare Result	T99X171.00
IR Component P/N	Vishay / TSOP75338TR
IR Carrier Frequency (KHz)	38
Minimum Irradiance, Ee min (mW/m2)	0.15

1.4 Configurations

Main board: T99X171.00 V005

F/W:

4.9.113
#1 Mon Feb 11 22:40:43 CST 2019

ELECTRICAL AND OPTICAL CHARACTERISTICS (Tamb = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply voltage		VS	2.5		5.5	V
Supply current	EV = 0, VS = 3.3 V	ISD	0.27	0.35	0.45	mA
	EV = 40 klx, sunlight	ISH		0.45		mA
Transmission distance	EV = 0, test signal see fig. 1, IR diode TSAL6200, IF = 250 mA	d		45		m
Output voltage low	I _{OSL} = 0.5 mA, E _a = 0.7 mW/m ² , test signal see fig. 1	V _{OSL}			100	mV
Minimum irradiance	Pulse width tolerance: t _{pl} - 5/f ₀ < t _{po} < t _{pl} + 6/f ₀ , test signal see fig. 1	E _e min.		0.15	0.35	mW/m ²
Maximum irradiance	t _{pl} - 5/f ₀ < t _{po} < t _{pl} + 6/f ₀ , test signal see fig. 1	E _e max.	30			W/m ²
Directivity	Angle of half transmission distance	φ1/2		± 50		deg

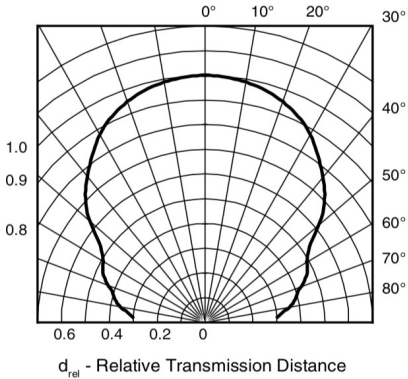


Fig. 12 - Horizontal Directivity

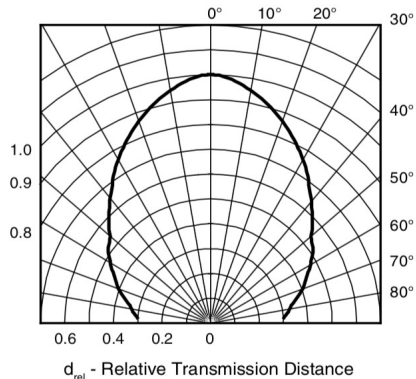


Fig. 13 - Vertical Directivity

Setup for horizontal test (Desk lamp on)



Setup for vertical test (Desk lamp on)



Setup for horizontal test (Desk lamp off)



Setup for vertical test (Desk lamp off)

