



**Ordering number FA10737\_TWIDDLE-D**

Family	Twiddle	FWHM	20 degrees
Type	Assembly	Efficiency	(simulated) 0 %
LED	XR-E	cd/Im	-
Color	Black	Gerber File	Available
Diameter	21.5 mm		
Height	14.4 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**Ordering number FA10739\_TWIDDLE-M**

Family	Twiddle	FWHM	28 degrees
Type	Assembly	Efficiency	71 %
LED	XR-E	cd/Im	-
Color	Black	Gerber File	Available
Diameter	21.5 mm		
Height	13.2 mm		
Style	Round		
Optic Material	PMMA		
Holder Material	PC		
Fastening	Tape		
Status	Ready		

**NOTE: The typical divergence will be changed by different color, chip size and chip position tolerance. The typical total divergence is the full angle measured where the luminous intensity is half of the peak value.**



## PRODUCT DATASHEET

### Twiddle series

last update 14/6/2012



#### GENERAL INFORMATION

- Product series especially designed & optimized for XR-E series of LEDs.
- Special care taken to make light distribution as uniform as possible.
- Lens material optical grade PMMA with high UV and temperature resistance (105 degrees of Celcius / 220 degrees of Fahrenheit). Allows use of high current and temperature conditions.

Please find more information about used material from below:

[http://ledil.fi/sites/default/files/Documents/Technical/Material/PMMA%20N%20UL94\\_Yellow%20Card.pdf](http://ledil.fi/sites/default/files/Documents/Technical/Material/PMMA%20N%20UL94_Yellow%20Card.pdf)

<http://ledil.fi/sites/default/files/Documents/Technical/Material/PMMA%20N%20PLEXIGLAS-Datasheet.pdf>

- Optic holder molded by high quality PC material (120 dergees of Celcius / 248 degrees of Fahrenheit).

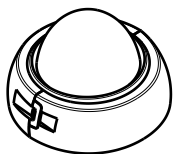
- Fastening to heat sink with a PU foam adhesive tape of automotive grade. Please find fastening details by clicking link: [http://www.ledil.com/datasheets/DataSheet\\_TAPE.pdf](http://www.ledil.com/datasheets/DataSheet_TAPE.pdf)

**NOTE 1: We advise customer to ensure the suitability and sufficiency of the bond in the end product. For example, mechanical stress, vibration and holes on the surface of the circuit board weaken the strength of the tape.**

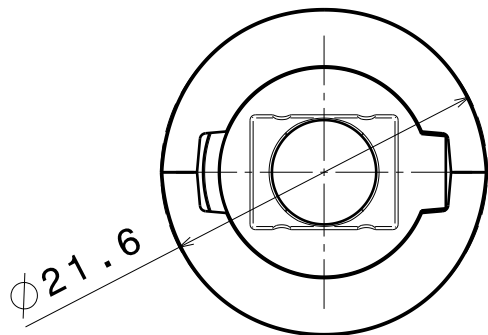
**NOTE 2: Assembly to the surface must be made straight, so the tape bonds constant and balanced with fastening surface. Slanted assembly might cause unbalanced bond to the surface. All surfaces where tape is applied must be clean, dry and free from grease and dirt.**

**If cleaning of PCB surfaces is needed, please follow strictly the cleaning instructions of your LED manufacturer - this is important as cleaning shall under no circumstances damage LEDs or other electronics components on the PCB.**

**Further note that optical components shall not be cleaned with any chemicals - only micro fiber cloth may be used to remove fingerprints or other traces from handling.**



Isometric view  
Scale: 1:1



Bottom view

14.2 without Tape

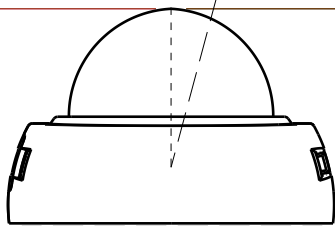
D

13.0 without tape

M

Adjustable light beam  
to all directions, max.15deg  
from center position.

15°



14.4

D

13.2

M

Front view

#### MATERIALS

Lens: PMMA

Holder: PC

#### Part no.s:

FA10737\_Twiddle-XR-D

FA10739\_Twiddle-XR-M

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**LEDIL**

Ledil Oy  
Tehdaskatu 13  
FIN-24100 SALO  
Finland

#### DRAWING TITLE

Datasheet Twiddle-XR Series Assy

DRAWN BY

pv

DATE

27.11.2009

CHECKED BY

tk

DATE

26.11.2008

DESIGNED BY

HH

DATE

14.10.2008

SIZE

A4

DRAWING NUMBER

REV

1

SCALE

2:1

WEIGHT (g)

-

SHEET

1 / 1

D

A