Inolux

RGB(W) SMD LED Product Brief

This product brief provides an overview of the RGB(W) SMD LED offering including product features and applications.

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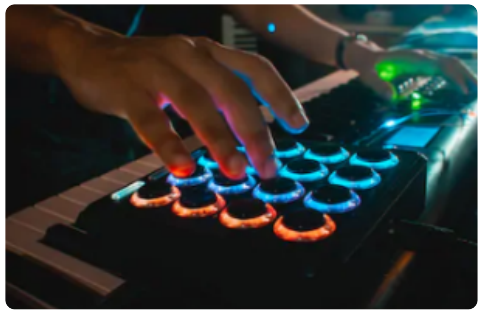
- **Optoelectronic** core focus
- **Comprehensive** package selection offering robust reliability and longevity
- **Application** and engineering support available, including optical simulation data
- **Custom** solutions and special binning

RGB LED OVERVIEW



Product Features

- Package dimensions from 1.0 x 1.0 x 0.65 (mm) to 3.5 x 2.8 x 1.9 (mm), provide a multitude of high density design options.
- Range of luminous intensity and luminous flux to optimize performance while achieving high economic goals
- Customized binning to meet your project needs.

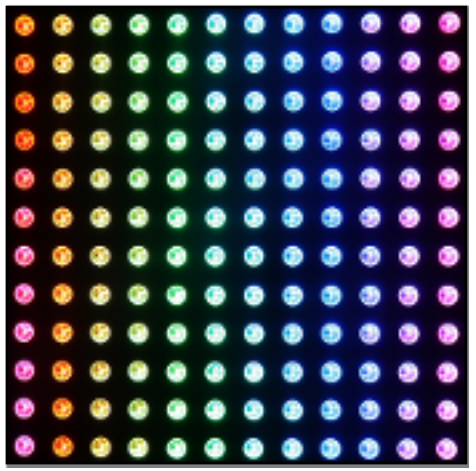
Applications

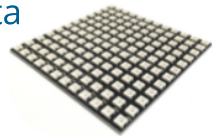
- IoT / Smart Devices
- Ambient Color Effects
- Decorative Lighting
- Signage
- Keyboard and Display Backlighting
- Wearables
- Aftermarket Automotive Lighting
- Network, Communication, and Server Equipment

Featured Product

INCM88001

12x12 Digital LED Matrix





- Single line data transmission
- Plug and play
- Stackable up to 4 Modules per driver

Applications

- Indoor Displays
- Information Signage
- DIY Devices

RGB LED-TOP VIEW

PRODUCT OVERVIEW

	Product Name	Package Description	Dimensions (mm)	Iv (mcd) R/G/B (Typ.)
	IN-P32TATRGB	3528 PLCC4 Pinout A	3.5 x 2.8 x 1.9	280/900/300 @20mA
	IN-P32TBTRGB	3528 PLCC4 Pinout B	3.5 x 2.8 x 1.9	285/900/300 @20mA
	IN-P55TATRGB	5050 PLCC6	5.5 x 5.0 x 1.5	900/1800/600 @20mA
	IN-S128TATRGB	1210 Also available in pinout B	3.2 x 2.7 x 1.1	170/450/160 @20mA
	IN-S85TATRGB	0805	3.5 x 2.8 x 1.9	200/520/140 @20mA
	IN-S66TATRGB	0606 4 Pin Also available in pinout B	1.6 x 1.5 x 0.55	180/450/115 @20mA
	IN-S66TFT5R5G5B	0606 6 Pin	1.6 x 1.5 x 0.4	45/285/56 @5mA
	IN-S66TCTRGBE	0606 4 Pin	1.6 x 1.5 x 0.55	450/1150/230 @20mA
	IN-B101FCH	1010	1.0 x 1.0 x 0.65	58/85/17 @10mA

Reverse Mountable

	Product Name	Package Description	Dimensions (mm)	Iv (mcd) R/G/B (Typ.)
	IN-S124TCR2R2G2B	1204	3.2 x 1.2 x 0.5	7/71/17 @2mA*
	IN-P32TRRRGB	3528	3.5 x 2.8 x 1.85	600/2000/450 @20mA

*Also available in 20mA

RGB LED-SIDE VIEW

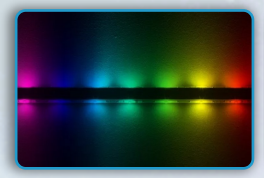
Product Features

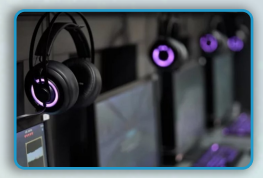
- High Brightness
- AlInGaP/InGaN Technology
- Customizable:
  - Brightness
  - Color
  - Lens

PRODUCT OVERVIEW

	Product Name	Package Description	Dimensions (mm)	I_V (lm) White (Typ.)
	IN-S63TBS5R5G5B	0.5T 0603	1.6 x 0.8 x 0.5	30/230/45 @5mA
	IN-S126TBSRGB	1.0T 1206	3.2 x 1.5 x 1.0	950/1500/330 @20mA
	IN-S126TASRGB*	1.0T 1206	3.2 x 1.5 x 1.0	250/1100/200 @20mA

***Available with a clear or diffused lens**

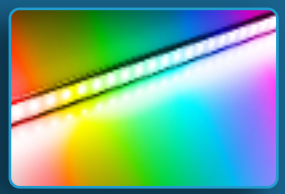




RGBW LED-TOP VIEW

Product Features

- Available in low, mid, or high power
- Analog / Digital options
- Customizable:
  - Brightness
  - Color
  - CCT
  - CRI



PRODUCT OVERVIEW

High Power

	Product Name	Package Description	Dimensions (mm)	Iv (lm) White (Typ.)
	IN-505FCHWV	5050	5.0 x 5.0 x 2.75	45/100/18/100 @350mA

Mid Power

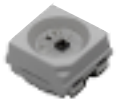
	Product Name	Package Description	Dimensions (mm)	Iv (mcd) R/G/B (Typ.)	Iv (lm) White (Typ.)
	IN-P55QDTRGBW	5050 PLCC8	5.0x5.0x1.65	500/220/450 @20(mA)	10 @30mA

Low Power

	Product Name	Package Description	Dimensions (mm)	Iv (mcd) R/G/B (Typ.)	Iv (lm) White (Typ.)
	IN-P55QSTGRGBW	5050 PLCC8	5.0x5.0x1.10	11/25/5 @100mA	40 @100mA

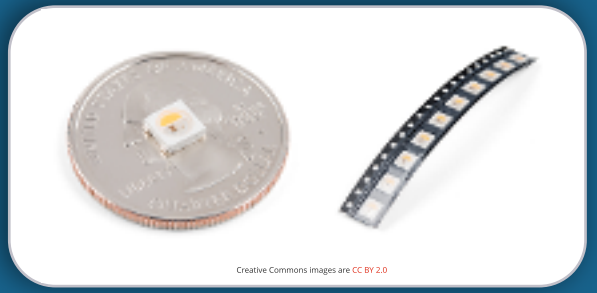
DIGITAL / ADDRESSABLE RGB LED-TOP VIEW

PRODUCT OVERVIEW

	Product Name	Package Description	Dimensions (mm)	Iv (mcd) R/G/B (Typ.)
	IN-PC55TBT	5050 RGB Clock IC	5.0 x 5.0 x 1.6	600/1250/400 @20mA
	IN-PI22TAT	2427 RGB IC - 4-pin	2.4 x 2.7 x 1.1	150/600/75 @5mA
	**IN-PI33TBT**	3.5 x 3.5 x 1.95 RGB IC - 4 PIN	3.5 x 3.5 x 1.95	400/1250/300 @12mA
	IN-PI55TAT	5050 RGB IC - 4-pin	5.0 x 5.0 x 1.6	600/1250/300 @12mA
	IN-PI55TBT	5050 RGB IC - 6-pin	5.0 x 5.0 x 1.6	600/1250/300 @20mA
	IN-PI33TCT	3537 Thin RGB IC - 6 pins	3.5 x 3.7 x 1.1	700/1500/400 @12mA
	IN-PI554	5050 RGB IC - 4-pin	5.0 x 5.0 x 1.6	600/1250/300 @12mA
	IN-PI556	5050 RGB IC - 6-pin	5.0 x 5.0 x 1.6	600/1250/400 @12mA

Product Features

- White Balance Binning
- Available in RGB / RGBW options
- Single trace or 2 wire SPI Protocols
- Customizable:
  - Brightness
  - Color
  - Lens



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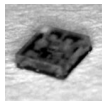
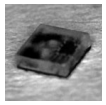
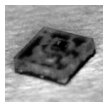
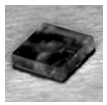
Side View

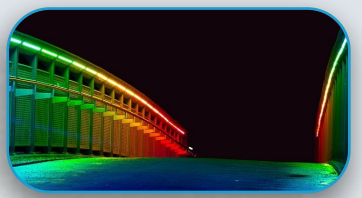
IN-PI42TAS

	Package Description	Dimensions (mm)	Iv (mcd) R/G/B (Typ.)
	4020 RGB IC 4-pin	4.0 x 2.0 x 1.5	400/1250/250 @12mA

DIGITAL / ADDRESSABLE RGB(W) LED-TOP VIEW

PRODUCT OVERVIEW

	Product Name	Package Description	Dimensions (mm)	Iv (mcd) R/G/B (Typ.)
	IN-PI15TAT	1515 RGB - 4 Pins	1.5 x 1.5 x 0.65	350/700/200 @2mA
	IN-PC20TBT	2020 RGB - 6 Pins	2.0 x 2.0 x 0.65	200/500/100 @5mA
	IN-PI20TAT	2020 RGB - 4 Pins	2.0 x 2.0 x 0.65	500/700/300 @12mA
	IN-PI20TBT	2020 RGB - 6 Pins	2.0 x 2.0 x 0.65	200/500/100 @12mA

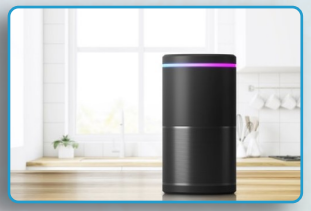


Product Features

- Built in IC with high-precision constant current
- 24 Bit Multicolor LEDs
- Data transfer rates of 800kbp/s at 30 frames per second
- RoHS2 and Reach Compliant

Addressable RGBW

	Product Name	Package Description	Dimensions (mm)	Iv (lm) White (Typ.) R/G/B/W
	IN-PI55QAT	5050 RGBW IC - 4-pin	5.0 x 5.0 x 1.6	300/850/150/1850 @12mA
	IN-PI33QBT	3537 RGBW IC - 6 pins	3.5 x 3.7 x 1.9	500/1500/400/3300 @12mA



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For more information on the RGB(W) SMD LED line including features, applications, and specifications, or to view additional parts in this product family, visit:

Inolux-Corp.Com/ProductsRGB

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