



MESHLE RGBW Interface

Overview

MDBT-RGBW – Bluetooth Module based on Nordic nRF52840 SoC Solution (Revision 2 IC) with pre-flashed MESHLE RGBW Interface Firmware. Suitable ideally for Light Control applications based on PWM signal. For the detailed module datasheet see [MDBT50Q-1MV2](#)

Hardware Features

- BT5.4 qualified module designed based on Nordic nRF52840 SoC solution
- Compact size with 10.5 x 15.5 x 2.05 mm
- Complete BT5.4 / BT5.3 / BT5.2 / BT5.1 / BT5 low energy solution with integrated chip antenna
- Pre-Certified Module: FCC / IC / CE / Telec / KC / SRRC / NCC / WPC Certified & CE RED / RCM Compliant.
- 32-bit ARM® Cortex™ M4F CPU
- Supply: 1.7V – 5.5V
- Operating Temp: -40°C to +85°C

Software Features

• Password-protected Bluetooth mesh network • Configuration and control via smartphone • Adjustable PWM Signal • Group control	• Timers • Rules • Adjustable start up state • Firmware Update Over The Air (OTA)	• Support Bluetooth EnOcean-Sensors & Kinetic Wall Switches • Remote Control* • Voice Control* • Cloud Dashboard* *Gateway is required
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Pinout

Pin-Label	Pin-Function	Pin-Name	Pin-Number	Input / Output
PWM0	Red Channel	P0.13	37	OUT PWM
PWM1	Green Channel	P0.14	36	OUT PWM
PWM2	Blue Channel	P0.15	39	OUT PWM
PWM3	White Channel	P0.16	38	OUT PWM
LED1	Info LED	P0.27	16	OUT
Soft Reset	Reset-/Program-Button	P0.11	27	IN (Pulled Up)
XL1*	External Oscillator	P0.00	17	
XL2*	External Oscillator	P0.01	18	
SWDIO	Debug-/Flash-Interface	SWDIO	51	
SWDCLK	Debug-/Flash-Interface	SWDCLK	53	
VDD*	+3V3	VDD	28	
VDDH*	+3V3	VDDH	30	
GND*	Ground	GND_1, GND_2, GND_3, GND_4, GND_5	1, 2, 15, 33, 55, GND	

Reference Schematics

MDBT50Q-1MV2 BLE Module

