



Features

- Bidirectional signal converter between WiFi interfaces and DALI commands.
- Supports WiFi operation in Simple AP(SAP) or Station (In Infrastructure or Ad-Hoc) mode.
- Supports Web browser to set WiFi parameters.
- Supports DC 18V from external power supply.
- Owns unique ID and can support up to 255 linking loops.
- The ID code can be written in via the WiFi interface so that the deployment is easy.
- Simplified wiring process with built-in DALI power.
- DALI output power: DC 16-25V/250mA max.

Description

AO-1203 WiFi/DALI bridge integrates the communication capabilities of DALI and WiFi, enables the users to access and manage the DALI network from portable devices, such as mobile phones or laptop computers, significantly enhancing the scalability of the system and enabling real openness and compatibility.

Ordering Information

PART NUMBER	INPUT/OUTPUT	SIGNAL DETECT	VOLTAGE	TEMPERATURE
AO-1203	DC/DC	TTL	18V	0°C to 60°C

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Storage temperature	T_S	-10	80	°C	
Supply voltage	V_{CC}	0	5	V	
Input voltage	V_{IN}	2	3.6	V	
Operating current	I_{OP}	0.91	360	mA	Max peak current



AO-1203

WiFi to DALI Bridge

Recommended Operating Conditions

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Operating ambient temperature range	T_A	0	70	°C	
Supply voltage	V_{CC}	0	5	V	
Operating input voltage	V_{IN}	2	3.6	V	
Operating current	$I_{TX} + I_{RX}$	---	250	mA	

RF Electrical Characteristics

$V_{IN} = 3.0\text{ V to } 3.6\text{ V}$, $T_C = 0\text{ }^\circ\text{C to } 70\text{ }^\circ\text{C}$, $f_c = 2.4\text{ GHz}$

PARAMETER	WiFi
Working frequency	2.4Ghz
Receiving sensitivity(1% PER)	802.11b: -92dBm @ 1 Mbps; -90dBm @ 2 Mbps; -89dBm @ 5.5 Mbps; -85dBm @ 11 Mbps 802.11g: -82dBm @ 6 Mbps; -82dBm @ 9 Mbps; -82dBm @ 12 Mbps; -82dBm @ 18 Mbps; -79dBm @ 24 Mbps; -76dBm @ 36 Mbps; -71dBm @ 48 Mbps; -70dBm @ 54 Mbps
TX output power	802.11b: 19±1dBm 802.11g: Peak 17 ± 1dBm @ 54 Mbps 18 ± 1dBm @ 48 Mbps 18.5 ± 1dBm @ 6 ~ 36 Mbps



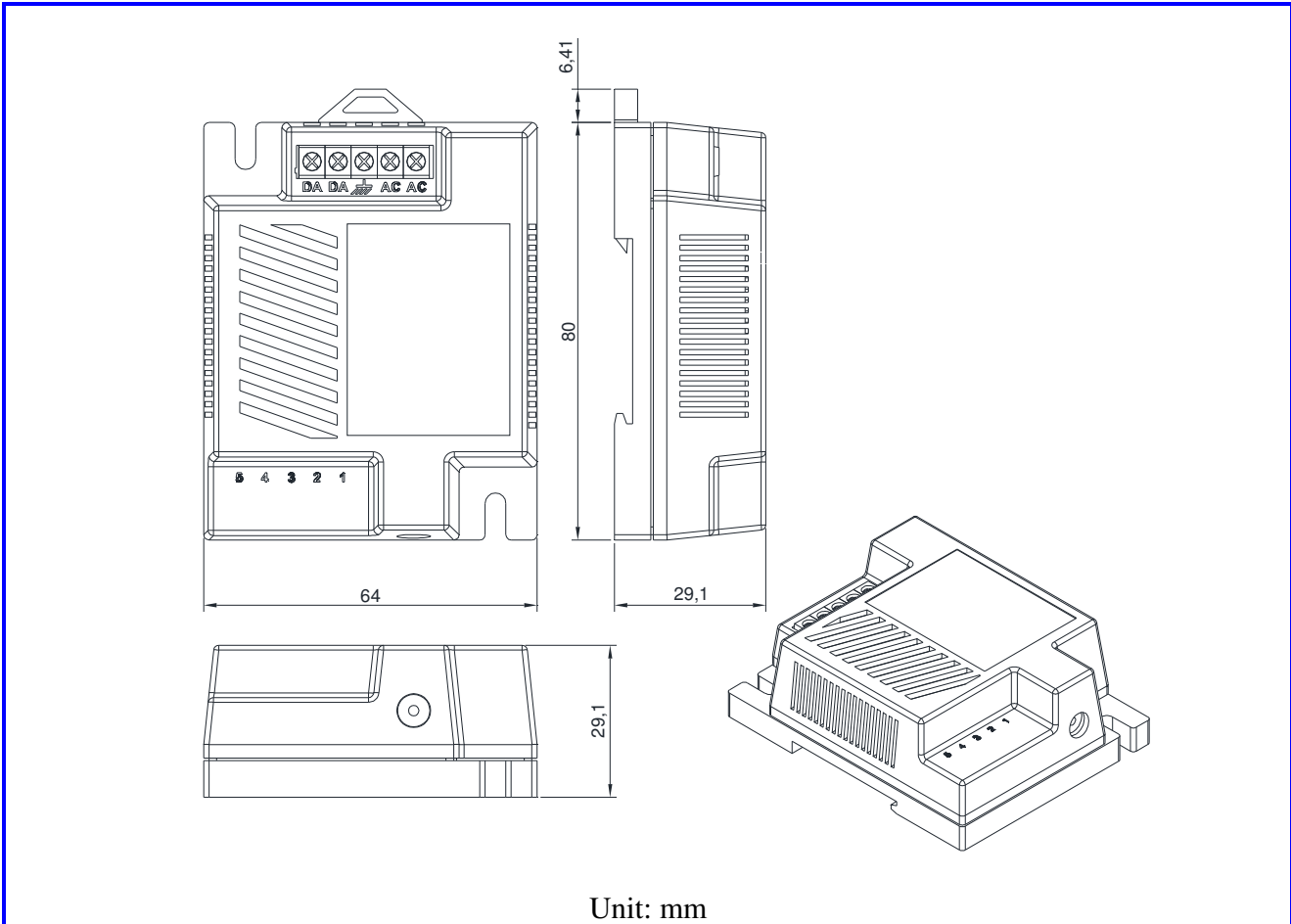
AO-1203 WiFi to DALI Bridge

	802.11b: 16.5±1dBm
	802.11g:
	Average 14 ± 1dBm @ 54 Mbps
	15 ± 1dBm @ 48 Mbps
	16.5 ± 1dBm @ 6 ~ 36 Mbps
Communication distance (LOS)	300m
RF data rate	802.11b: 1, 2, 5.5 and 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps Supports TX rate auto fall-back mechanism
Network topology	Point-to-point, Star, Mesh
Security	1. WEP-64/128, TKIP (WPA-PSK) and AES (WPA2-PSK) in Station mode 2. WEP-64/128 in SAP mode
Antenna type	PCB

General Characteristics

PARAMETER	DALI	WiFi
Input power	DC 12V	
Single power supply	3.3V	3.3V
Operating temperature	-40 ~ 85°C	0 ~ 70°C
Operating temperature (Avg.)	0 ~ 70°C	
Working relative humidity (Avg.)	≤ 80%	
Static power consumption	0.99mW ~ 131mW	3mW ~ 811.8mW
Peak power consumption	< 0.25W	< 1.2W

Dimensions



Unit: mm