L3211
Barrel Booster

Barrel Booster

Overview

The L3211 Barrel Booster has been specifically tailored for wireless camera back applications. Designed to fit directly onto the RF output from the Link range of transmitters, this unit is small, lightweight and easy to use. This amplifier includes ALC (Automatic Level Control) in order to provide a constant RF output power for all transmitter power level settings. The L3211 has a wide DC operating range (9-28V) and can be powered via the RF input connector* or using the Lemo power cables supplied with the unit. These power cables allow the option to connect to the Lemo power socket on the wireless transmitter or to the D-Tap adaptor from an IDX or Anton Bauer battery plate.

Incorporating LDPD (Link Digital Pre-Distortion) for improved adjacent channel rejection, integral harmonic filtering and a power save mode this amplifier is a must have addition to any wireless camera system where extended range is required.

* Switchable phantom power to the L3211 barrel booster is provide in the L1530-1927 RF module.

Features

- Boosts RF transmitter power for extended range.
- Provides optimal trade-off between transmit power, DC power consumption and spectral efficiency.
- Small, light-weight & robust construction.
- Designed to mate directly to the Link range of camera back transmitters.
- Incorporates LDPD (Link Digital Pre-Distortion) for improved adjacent channel rejection.
- Includes input and output RF harmonic filters to ensure regulatory compliance.
- ALC (Automatic Level Control) maintains a constant RF output for all transmitter settings.
- Can also be operated as a fixed gain power amplifier for user defined RF output powers.
- RF output fully protected against mis-match damage.
- Powered via RF input connector or external Lemo connector.
- Power save mode when RF muted.
- Wide DC (9-28V) operating range.
- Tri-colour LED indicates unit status and RF output mode setting.

Specifications

Electrical

At 20±5°C ambient

Parameter	Conditions	Min	Typ	Max	Units	Comment
Frequency Range	L3211-2027	2000	–	2700	MHz	
	L3211-6475	6400	-	7500	MHz	Does not include LDPD
RF Output Power	ALC Mode	+28 (0.63)	28.75(0.75)	+30 (1.0)	dBm (W)	
RF Input Power Range	ALC Mode	+10 (10)	–	+24 (250)	dBm (mW)	
Gain	Fixed Gain Mode	10	–	15	dB	
Spectral Regrowth	Adjacent Channel	–	–	-40	dBc	EN 302 064-1 §7.3.4
	Alternate Channe	–	–	-46		
Spurious	25MHz – 1GHz	–	–	0.25(-36)	nW(dBm)	EN 302 064-1 §7.4.6
	1GHz – 27GHz	–	–	1(-30)		
Return Loss	–	10		–	dB	
RF Input Damage Level	CW			+27 (0.5)	dBm (W)	
	Pulsed			+36 (4)		
Static Protection	Direct Discharge			8	kV	IEC61000-4-2
	Air Discharge			15		
Temperature Rise	Above Ambient		32		ºC	IEC60417-5041
Supply Voltage		9		28	V	
Power Consumption	RF OFF		7.5		W	
	RF ON		14		W	

Compliance

Standard	Class/Category	Version
ETSI EN 302 064-1	Category 1	V1.1.2
ETSI EN 301 489-28	Class B	V1.1.1

The barrel booster is supplied with 2 complimentary power cables from the options listed below

PN:9003434	Barrel Booster ALC Power Cable (Lemo straight)
Pn:9003435	Barrel Booster ALC Power Cable (IDX D-TAP)
Pn:9003437	Barrel Booster ALC Power Cable (Anton Bauer P-TAP)
Pn:9003438	Barrel Booster ALC Power Cable (Lemo right-angle)

Environmental

Operating Temperature
(Portable Equipment)
- -10°C to +50°C

Storage Temperature
- -20°C to +80°C

Humidity
- 95%
- Non-Condensing

IP Rating
- 54

Mechanical

RF/DC Input Connector
- 50Ω N Type (M)

RF Output Connector
- 50Ω N Type (F)

Power Connector
- 6-Pin Lemo Socket

Phantom Power
- Applied to RF Input Connector

Weight
- 0.32Kg

Length
- 106mm (inc. connectors)

Diameter
- 62mm

Status Indicator
- Green (DC Power/ALC OK)
- Orange (DC Power OK/Fixed Gain)

Power Connector 6-Pin Lemo Socket

L3211 Socket
- EEG.OB.306 CLV

Mating Plug
- FGG.0B.306 CLA (straight)
- FHG.0B.306 CLA (right-angle)

Pin Out
- 1 & 2: GND, 3 & 4: +VE, 5 & 6: NC

Note: When operating the barrel booster in the 'Fixed Gain' mode the RF output power is no longer controlled by the barrel booster's ALC and therefore it is the operator's responsibility to ensure that the RF drive into the barrel booster is at an appropriate level not to cause over-drive or damage and to maintain regulatory compliance.

Hot surface, do not touch barrel booster heat sink surface during operation.