

Product Specifications

PA421B Antenna Combiner



PA421A Antenna Combiner (front and rear views)

Overview

Shure PA421B Antenna Combiners are complementary accessories for Shure PSM® Personal Stereo Monitor systems. When multiple systems are required for monitoring applications, the PA421B combiners quietly and efficiently optimize RF management for up to four PSM® transmitter, while also reducing rack clutter. (Directly replaces PA421A.)

Features

- Combines up to four PSM® transmitters to a single antenna set
 - Improved intermodulation artifacts for cleaner RF environment
 - Reduces rack clutter
- Wideband operation (470-865 MHz or 865-960 MHz)
- Daisy-chain up to 2 combiners with the expansion port
- Provides DC power to compatible IEM transmitters
- LED indications of signal presence, signal overload and current draw
- Improved fan design significantly improves thermal efficiency and ambient noise
- Optional modification to enable combining of microphone receiver antennas (contact Shure Service Department for more details)
 - Provides +15V bias on RF inputs to power antennas
 - Requires modification of unit by qualified service technician

Available Models

PA421B	Four-channel Antenna Combiner, 470-865 MHz
PA421BX	Four-channel Antenna Combiner, 865-960 MHz

Specifications

RF Frequency Range	PA421B: 470-865 MHz PA421BX: 865-960 MHz
Impedance	50 Ω
Operating Temperature Range	-18 °C (0 °F) to 63 °C (145 °F)
Power Requirements	100 to 240 V AC, 50-60 Hz
Current Drain	1.09 A (referenced at 100 V AC) (109 VA)
Power Consumption	98 W max.
RF Input	
Connector Type	BNC
Configuration	Active
Impedance	50 Ω
RF Gain	0 dB (±2 dB)
LED Indicator Min. Detection Threshold	2.5 dBm
LED Indicator Overload Threshold	>24 dBm
Main Output	
Connectory Type	BNC
Impedance	50 Ω
Expansion Port	
Connector Type	BNC
Configuration	Passive
Impedance	50 Ω
Insertion Loss	<4 dB
RF Expansion Port Normal Operating Range	33 dBm (2 W)
DC Outputs	
Output Voltage	15 V DC
Output Current (Per Output)	660 mA max
Output Power (Per Output)	9.9 W
LED Indicator Min. Detection Threshold	85 mA
LED Indicator Overload Threshold	>660 dBm

Included Accessories

IEC Power Cord	Four (4) 2 ft. DC power output cables
Four (4) 22 in. coaxial cables, BNC terminated	One (1) 11 in. coaxial cable, BNC terminated

Optional Accessories

Passive omnidirectional antenna	Passive directional antenna
Helical antenna	BNC-terminated coaxial cables (RG-8X/U; various lengths)

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