

# PowerBoost System Kits

DC Up-Converter with Output Management

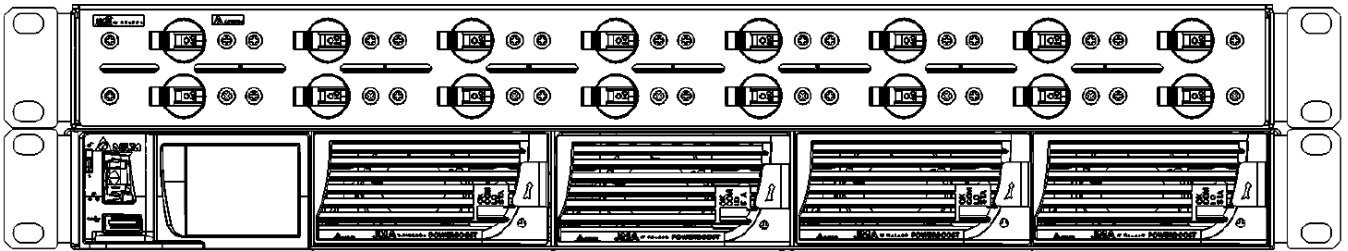


## PowerBoost features and benefits

- PowerBoost monitors the radio power load and automatically boosts the DC power plant voltage to maintain optimum radio operation.
- Output management provides individual output control
- PowerBoost solution provides class-leading power density, resulting in the smallest industry footprint
- Incorporates a touch controller for fast and simple operation
- Fully modular, plug and play ready
- Pre-configured kits contain all needed modules.
- PB-19-KIT6 for 6 RRH, PB-19-KIT9 for 9 RRH, PB-19-KIT12 for 12 RRH



### PB-19-KIT8



### Kit configurations (includes rack, controller, OMM, boost modules & covers)

PowerBoost rack configuration	PB-19-KIT6	PB-19-KIT9	PB-19-KIT12
Output channels supported (RRH)	6	9-10	12
PowerBoost rack (w/ Orion controller) & OMM	(1) PB-19-SYS-8	(1) PB-19-SYS-16	(1) PB-19-SYS-16
Boost modules	(3) PB-PSU-162	(5) PB-PSU-162	(6) PB-PSU-162
Blank bay covers	(1) PB-PSU-COV	(3) PB-PSU-COV	(2) PB-PSU-COV

### Electrical

Input voltage range <sup>1</sup>	-36 to -58, -54 nom VDC
Input current range (per feed) <sup>2</sup>	0 to 220 A
DC input breaker sizing (per feed), min <sup>3</sup>	200 A
Input connections	Dual lug 1/4" x 5/8"
Output voltage range <sup>4</sup>	-48 to -73 VDC
Output current per channel, max.	0 to 33 A
Output connections	Dual lug 1/4" x 5/8"
Output regulation (at 30A boost module load)	+/- 1%
Output ripple	<100 mVpp
RRU setpoint	-56 VDC
Power efficiency	95% min. / 97% typ.
Delivered power, per ch.	1600 W / CH

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## DC Up-Converter with Output Management

Configurations			
PowerBoost rack configuration	<b>PB-19-KIT6</b>	<b>PB-19-KIT9</b>	<b>PB-19-KIT12</b>
Number of output channels supported	6	9-10	12
Electrical (continued)			
Supported length	0-600 ft. <sup>5</sup>		
Case / chassis earth ground connection	1/4"-20 x 5/8" landing stud pair		
User interface	Rack mounted, Orion		
Alarm Connections	see Installation Manual, OMM integrated		
OMM DC Breaker Rating (A)	50 (16 positions)		
OMM DC Landings	16 Input + 16 Output, dual 1/4"-20 x 5/8" studs		
Mechanical			
Rack dimensions, in.	3.5 h x 19.0 w x 18.0 d	5.3 h x 19.0 w x 22.0 d	5.3 h x 19.0 w x 22.0 d
Configured weight (lb) / rack space needed (U)	31 / 2U	51 / 3U	54 / 3U
Environmental			
Operating temperature, °C/°F	-40° to +65° / -40° to 149°		
Relative humidity (non-condensing)	0% to 95%		
MTBF, hrs.	300,000 / 40 °C   220,000 / 55 °C		
Approvals / Compliance / Certification			
UL IEC 60950, NEBS			

Part Number	Description
PB-19-KIT6	POWERBOOST, 19IN, 6RRH KIT W/ OMM & PSU
PB-19-KIT9	POWERBOOST, 19IN, 9RRH KIT W/ OMM & PSU
PB-19-KIT12	POWERBOOST, 19IN, 12RRH KIT W/ OMM & PSU
PB-19-SYS-8	POWERBOOST, 19" SHELF W/ CONT, 1-8 RRH + OMM
PB-19-SYS-16	POWERBOOST, 19" SHELF W/ CONT, 1-16 RRH + OMM
PB-PSU-162	POWERBOOST, POWER SUPPLY UNIT, 1600W, 2CH
PB-PSU-COV	POWERBOOST, SLOT BLANK COVER, PSU
PB-19-EP-8	Expansion pack, expands installed PB-19-SYS-8 to SYS-16

<sup>1</sup> -38.5V required for startup

<sup>2</sup>At Minimum input voltage -38 V (2 feeds per 1U rack)

<sup>3</sup>Determined by system design

<sup>4</sup>Output 3 volts greater than system battery/float voltage

<sup>5</sup>Longer distance may be possible- consult JMA Technical Support.

**Important:** Prior to beginning installation of hardware, a system design that evaluates the site characteristics including RRRHs, installed conductors, and the DC plant must be performed. JMA Wireless recommends consulting NEC Table 310.15(B) (17) to determine the required American Wire Gauge (AWG).