Flex Power Modules

DC/DC Power Modules for Telecom Applications

2026

flex

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Power Modules

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Our DC/DC portfolio for Telecom

Flex Power Modules supports the full breadth of today's telecom and wireless infrastructure—from traditional routers, switches, servers, and optical transport systems to the latest 5G and emerging 6G technologies. Our solutions power O-RAN and virtualized RAN (vRAN) architectures, massive-MIMO radio units, fronthaul/midhaul/backhaul equipment, edge-compute platforms, cloud-integrated network nodes, as well as mission-critical devices such as session border controllers, gateways, and other high-performance networking systems.

In addition, we offer a broad portfolio of products specifically suited for Radio Frequency Power Amplifier (RFPA) and microwave applications. These solutions have been engineered for the global acceleration of 5G deployments—and are already aligned with the architectural and performance requirements anticipated for early 6G research, testbeds, and pre-standardization activities. As networks move toward higher frequencies, wider bandwidths, and increasingly dense radio architectures, reliable, compact, and efficient board-mounted power solutions become even more essential.

Our telecom solutions offer:

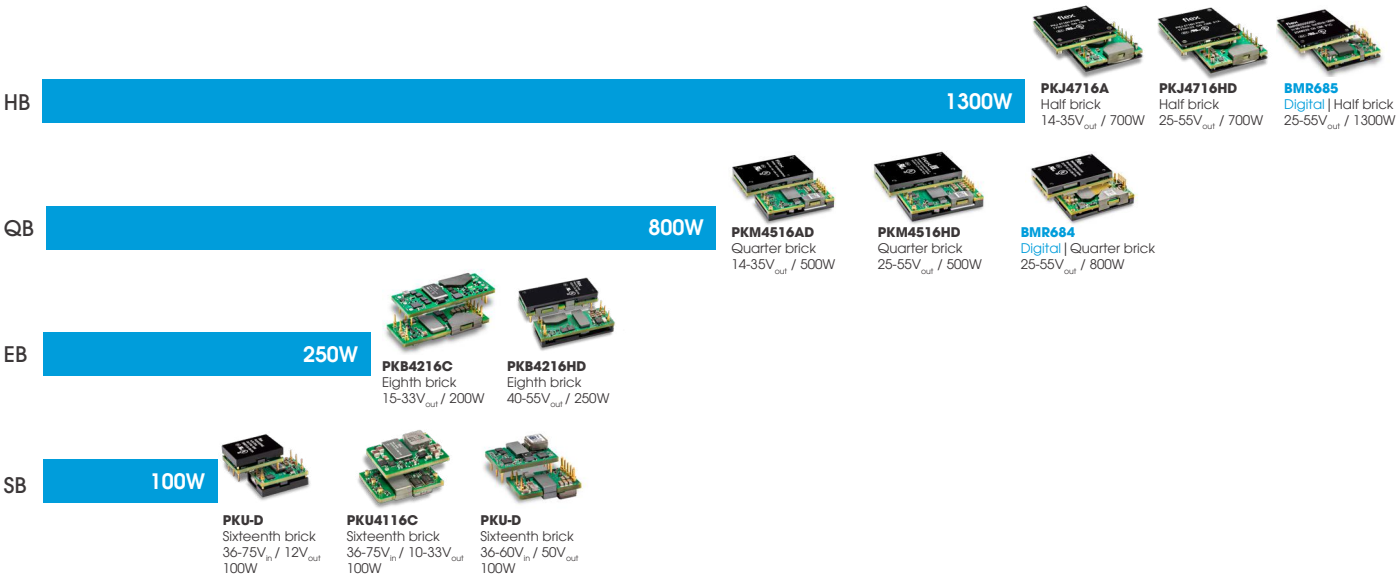
- High efficiency
- High reliability
- High power density
- Typical input ranges of 36-75V

To help drive the next generation of wireless networks, Flex collaborates closely with the O-RAN Alliance—a global community of more than 160 mobile operators, vendors, and research and academic institutions shaping an open and intelligent Radio Access Network (RAN) ecosystem. This collaboration ensures our roadmap evolves in step with rapidly advancing 5G architectures and the foundational technologies that will enable future 6G networks.

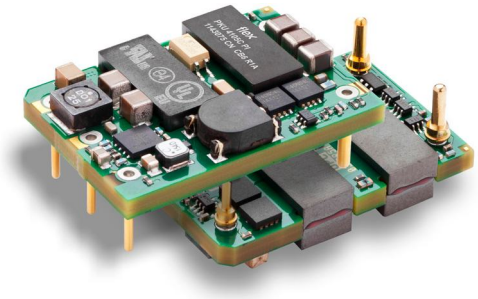
O-RAN ALLIANCE

RFPA products

Digital and analog power modules for Radio Frequency Power Applications (RFPA), Microwave and Small Cell Applications, from smallest form factor of a 1/16 brick up to 1/2 brick size.



Sixteenth brick | PKU-C (43-100W)



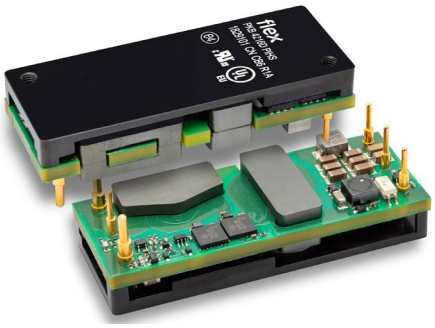
Key Features:

- Open frame
- High efficiency power module
- Isolation voltage 1500V
- N+1 parallelability
- Optional baseplate
- MTBF figures up to 5.2 Mhrs

Dimensions: 33 x 22.9 x 9.6 mm (1.3 x 0.9 x 0.38 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
PKU4416Z	28-60	24	19.2-26.4	1.8	43	91.7
PKU4116C	36-75	30	10-33	3.3	100	92.9

Eighth brick | PKB-C / PKB-D (200-250W)



Key Features:

- High efficiency with power density
- Wide trim range
- Few components – very space efficient
- Isolation voltage up to 2250V
- MTBF figures up to 10 Mhrs

Dimensions: 58.4 x 22.7 x 13.2 mm (2.3 x 0.9 x 0.52 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
PKB4216C	36-75	30	15-33	6.7	200	95
PKB4216HD	36-60	48/50	40-55	5	250	94.5

Quarter brick | PKM-D (504W)

Key Features:

- Fully regulated DC/DC converter
- Excellent thermal performance
- Excellent power density
- Isolation voltage 2250V
- MTBF figures up to 8 Mhrs

Dimensions: 57.9 x 36.8 x 12.7 mm (2.28 x 1.45 x 0.5 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
PKM4516AD	36-75	28/30	14-35	18	504	96.2
PKM4516HD	36-75	48/50	25-55	10	500	96.2

Half brick | PKJ (700W)

Key Features:

- Excellent thermal performance
- Single stage converter
- Smart design with enhanced reliability
- Isolation voltage 1500V
- MTBF figures up to 7.5 Mhrs

Dimensions: 61 x 57.9 x 12.7 mm (2.4 x 2.3 x 0.5 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
PKJ4716HD	36-75	48/50	25-55	14	700	96.3
PKJ4716A	36-75	48/50	28	14	700	96.3

Quarter brick | BMR684 (700W)

Key Features:

- High efficiency with 96%
- Isolation 1500V
- Standard footprint with digital header
- Pre-bias start-up

Dimensions: 58.4 x 36.8 x 12.7 mm (2.3 x 1.45 x 0.5 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
BMR6841100/001	36-75V	48/50	25-55	14	700	95.5
BMR6841120/201	36-75V	48/50	25-55	16	800	95.9

Half brick | BMR685 (1300W)

Key Features:

- Digital converter with continuous power up to 1300W
- Wide input range
- Excellent dynamic performance
- Isolation 2250V

Dimensions: 61 x 57.9 x 12.7 mm (2.4 x 2.28 x 0.5 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
BMR6853300/001	36-75	48/50	25-55	26	1300	96.5

Other Telecom Products

Latest digital and analog DC/DC converters designed for the Core & Edge part of Telecom Networks, which include applications such as routers, switches, servers, optical networks, session border controllers & gateways.

DIGITAL ISOLATED DC/DC CONVERTERS

Eighth brick | BMR492 (500W)

Key Features:

- Pre-bias start-up
- Isolation 2250V
- Supported by Flex Power Designer
- Halogen-free

Dimensions: 58.4 x 22.7 x 13.2 mm (2.3 x 0.89 x 0.55 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
BMR4920311/011	36-75	12	8-13.2	42	500	96

Quarter brick | BMR458 (600W)

Key Features:

- High efficiency > 96.4%
- Available as open frame and baseplate versions
- Isolation voltage 2250V
- Active current sharing available
- Droop load sharing available

Dimensions: 57.89 x 36.8 x 11.2 mm (2.28 x 1.45 x 0.45 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
BMR4580002/003	36-75	12	8-13.2	50	600	96.4
BMR4580032/003*	36-75	12	8-13.2	50	600	96.4
BMR4580002/014	36-75	12.45	8-13.2	50	600	96.4
BMR4580032/014*	36-75	12.45	8-13.2	50	600	96.4

* Alternative digital pinout, deviation from length dimension

Quarter brick | BMR480 (800W)

Key Features:

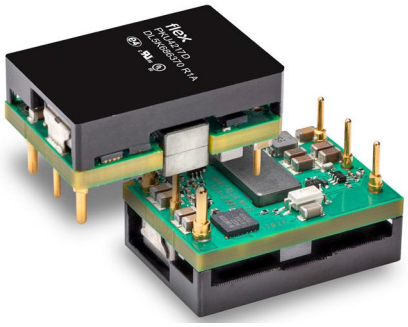
- Excellent thermal performance
- Active current sharing
- Droop load sharing capability
- Over voltage protection
- Output short-circuit protection
- Isolation voltage 1500V
- MTBF up to 6 Mhrs

Dimensions: 58.4 x 36.8 x 14.48 mm (2.3 x 1.45 x 0.57 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
BMR4800113/034	36-60	12	8-13.2	69	800	96.7

ANALOG ISOLATED DC/DC CONVERTERS

Sixteenth brick | PKU-D (100-300W)



Key Features:

- High efficiency up to 95%
- Isolation voltage 2250V
- Pre-bias start up
- Optional baseplate and SMD versions
- MTBF figures up to 12.9 Mhrs

Dimensions: 33 x 22.9 x 11.3 mm (1.3 x 0.9 x 0.44 in)

	SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
	PKU4110D	36-75	3.3	2.6-3.6	30.3	110	93.7
	PKU4111D	36-75	5	4-5.5	27	150	93.6
NEW!	PKU4917D	36-75	6	5.5-6.6	16.7	100	92.7
	PKU4217D	36-60	10.4	N/A	10	260	96.1
NEW!	PKU4911D	36-75	5	4-5.5	20	100	93.2
	PKU3913D	30-60	12	9.6-13.2	8.3	100	93.5
	PKU4913D	36-75	12	9.6-13.2	8.3	100	93
	PKU4113D	36-75	12	9.6-13.2	10	120	94.5
	PKU4213D	36-75	12	9.6-13.2	17	204	95
NEW!	PKU4317D	48-60	12	10.8-12.24	25	300	96.4

Eighth brick | PKB-D (132-450W)

Key Features:

- Efficiency up to 96%
- Isolation up to 2250V
- Optional baseplate & SMD version
- MTBF up to 8.9 Mhrs

Dimensions: 33.02 x 22.86 x 9.4 mm (1.3 x 0.9 x 0.37 in)

SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
PKB4110D	36-75	3.3	2.6-3.6	40	132	95.4
PKB4210DA	36-75	3.3	2.6-3.6	62	205	95.4
PKB4111D	36-75	5	4-5.5	30	150	95.5
PKB4211D	36-75	5	4-5.5	40	200	95.3
PKB4211DA	36-75	5	4-5.5	52	260	95.5
PKB4217ND	36-75	10	N/A	25	250	95.7
PKB4213D	36-75	12	N/A	22	264	95.4
PKB4313D	36-75	12	N/A	25	300	96.2
PKB4313DA	36-75	12	N/A	32	390	95.6
PKB4413DA*	36-75	12	N/A	34	408	96.2
PKB4413D*	36-60	12	N/A	37.5	450	96.2

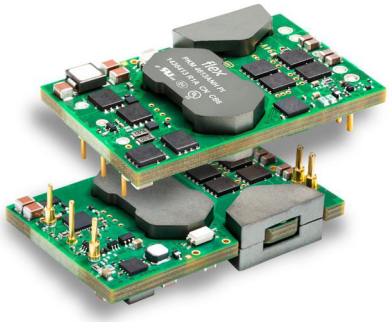
* Hybrid regulated ratio (HRR)

Quarter brick | PKM-NH (600W)

Key Features:

- High efficiency up to 96.2%
- Isolation voltage 2250V
- Fully regulated output voltage
- Optional baseplate
- MTBF figures up to 3.34 Mhrs

Dimensions: 57.9 x 36.8 x 11.4 mm (2.28 x 1.45 x 0.45 in)



SERIES NAME	V_{IN} (V)	V_{OUT} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
PKM4613ANH	36-75	11.6	N/A	50	580	96
PKM4613NH	36-75	12	N/A	50	600	96.2

DIGITAL NON-ISOLATED POINT OF LOAD

BMR4690000

BMR4696001

BMR466

BMR464

BMR463

BMR461

BMR474

BMR473 SMD

BMR473 SIP

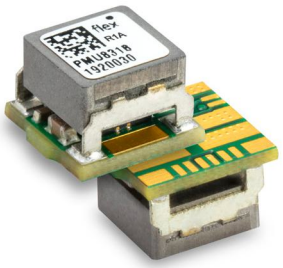
SERIES NAME	V_{IN} (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	η (%)
BMR461	4.5-14	0.6-5.0	6/12/15/18	60	Up to 96
BMR463	4.5-14	0.6-3.3	25	83	97.1
BMR464	4.5-14	0.6-3.3	50	165	97.2
BMR466	4.5-14	0.6-1.8	60	108	93.6
BMR474	15	0.6-3.3	60-80*	198	90.8
BMR4731x01/001 (SIP)	6-15	0.6-5	40	100	96.2
BMR4732x01/001 (Horizontal mount SMD)	6-15	0.6-5	40	100	95.6
BMR4696001**	7.5-14	0.6-5.0	2 x 25A	100	94.3
BMR4690000***	7.5-14	0.6-5.0	2 x 40A	200	92.6

* 80A for output voltage < 1.8V and 60A for output voltage > 1.8-3.3V
** Configurable as single 50A output
*** Configurable as single 80A output

ANALOG NON-ISOLATED POINT OF LOAD

PMU8000

The PMU8000 series is our ultra-miniature Point of Load converter.



Key Features:

- Small package size and low weight (0.92 g)
- Loop Optimization feature
- Configurable soft start and tracking feature
- Bottom side mounting
- MTBF figures up to 172 Mhrs

Dimensions: 7.5 x 7.5 x 5.4 mm (0.29 x 0.29 x 0.21 in)

SERIES NAME	V_{IN} RANGE (V)	V_{OUT} ADJUST (V)	I_{OUT} (A)	P_{OUT} (W)	EFFICIENCY (%)
PMU8218	4.5-17	0.6-5.5	4	22	93.1
PMU8318	4.5-17	0.6-5.5	6	33	92.7
PMU8418	4.5-17	0.6-5.5	8	44	91.9

Software

Flex Power Designer Software is used to sketch and simulate future power systems as well as to configure and monitor your existing digital power system. Flex Power Designer also allows for easy import of .xpe and .pdm files generated in Xilinx Power Estimator and Xilinx Power Design Manager to support easy power supply optimization for Xilinx FPGAs including Virtex/Kintex Ultrascale/Ultrascale+ and Versal ACAPs.

The software is available as a free download from our homepage flexpowerdesigner.com

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Flex (Reg. No. 199002645H) is the manufacturing partner of choice that helps a diverse customer base design and build products that improve the world. Through the collective strength of a global workforce across 30 countries and responsible, sustainable operations, Flex delivers technology innovation, supply chain, and manufacturing solutions to various industries and end markets.

For more information, visit flex.com.