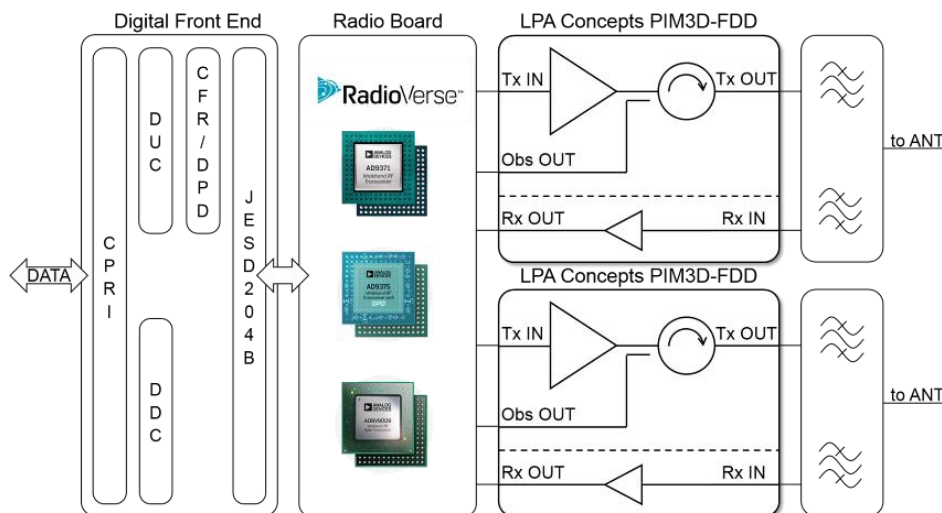


## HIGH POWER Tx-Rx MODULES FOR 3G-4G-5G RF HEADS

The PIM3 modules are RF power amplifier modules that integrate all necessary RF functions required close to the antenna in 3G-4G-5G RF heads. They convert the RF signals from mWatts at the output of the radioboard to Watts at the input of the Tx-Rx filters and antennas.



TYPICAL MIMO 2x2 FDD RADIO HEAD

The PIM3 modules are available as Tx only modules (PIM3B) or Tx-Rx modules (PIM3D). The main features of the PIM3D modules are:

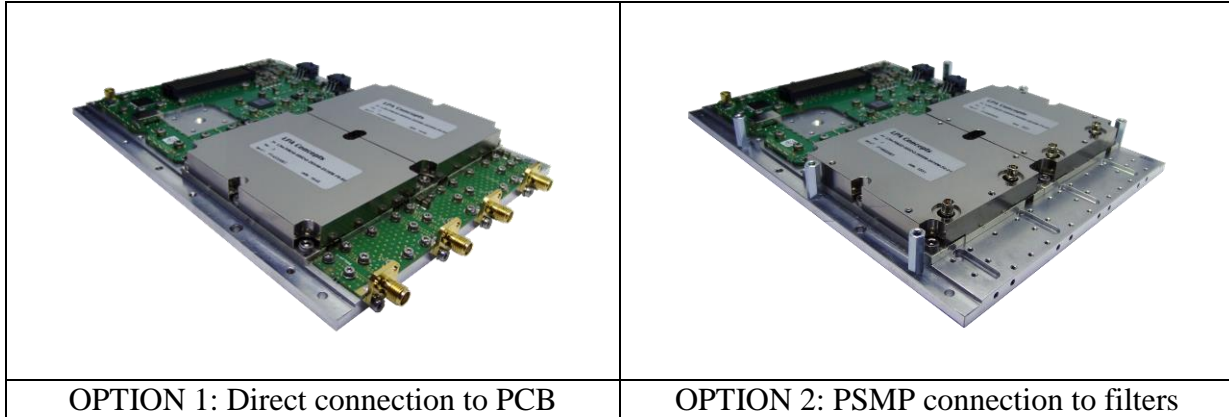
- ◆ High efficiency amplification
- ◆ FDD / TDD compatibility
- ◆ Compact design for high order MIMO applications
- ◆ Internal and external shielding and isolation
- ◆ Good interface for thermal dissipation
- ◆ Standard cable less interconnectivity with radio boards and filters

PIM3 modules are available for all major cellular bands ranging from 1800MHz to 3600MHz at power levels ranging from 50W peak to 150W peak.



All modules share the same interface to a common wideband radioboard. Modules can therefore easily be exchanged to convert the RF head to different frequencies or power levels.

PIM3D modules are available with 2 types of connection to the filter section:



OPTION 1 is used in applications where a 75dBc Tx-Rx isolation is sufficient. Typically with ceramic filters at power levels of 5W average or lower.

OPTION 2 is used when one needs a 100 to 110dB Tx-Rx isolation. Typically with cavity filters at power levels higher than 5W average.

PIM3B modules availability:

LPA CODE	Part number	Output interface	Frequency (MHz)	Class	Peak power	Efficiency	Status
P1360	LPA-PIM3B-050DO-2620M-2690M-00-00	SMA	2620-2690	DOH	50W	25%@5W	available
P1400	LPA-PIM3B-050DO-2620M-2690M-00-02	PCB	2620-2690	AB	50W	14%@5W	available
P1410	LPA-PIM3B-050DO-2620M-2690M-00-02	PCB	2620-2690	DOH	50W	25%@5W	available
P1440	LPA-PIM3B-050DO-2496M-2690M-00-00	SMA	2496-2690	DOH	50W	25%@5W	available
P1470	LPA-PIM3B-040DO-3400M-3600M-00-00	SMA	3400-3600	DOH	40W	18%@4W	available

PIM3D modules availability:

LPA CODE	Part number	Filter interface	Mode	Band	Tx Peak power	Rx NF	Status
P1600	LPA-PIM3D-050DO-2496M-2690M-T0-02	PCB	TDD	41	50W	2.0dB	available
P1450	LPA-PIM3D-050DO-2655M-2535M-F0-02	PCB	FDD	7	50W	1.5dB	available
P1460	LPA-PIM3D-050DO-2655M-2535M-F0-01	PSMP	FDD	7	50W	1.5dB	available
P1540	LPA-PIM3D-150DO-2140M-1950M-F0-01	PSMP	FDD	1	150W	1.5dB	available
P1640	LPA-PIM3D-150DO-2300M-2400M-T0-01	PSMP	TDD	40	150W	1.5dB	Q3 2019
P1650	LPA-PIM3D-050DO-3400M-3600M-T0-02	PCB	TDD	42	50W	1.5dB	Q3 2019

Demonstration kits including a radio board using ADi AD9375 and BAND 7 50W PIM3D modules are available for both PCB and PSMP connections.