

Product Brief

50V LDMOS RF Power Transistors

Radar, Commercial Avionics, ISM & Broadcast Applications

Developed for applications that require high levels of stability and ruggedness, Infineon's 50V LDMOS technology enables amplifier designs with the highest performance and quality. With more than 10 years of LDMOS manufacturing experience, we offer high power transistor products with a high level of consistency and reliability. Our expanded product portfolio includes products operating from 500MHz to 1400MHz with output power from 10W to 1000W.

Key Amplifier Applications:

- Commercial Avionics (960MHz to 1215MHz)
- RADAR (L-Band, UHF)
- General Purpose Amplifiers (500MHz to 1400MHz)
- Communications Power Amplifiers (500MHz to 1400MHz)

Main Features

- High gain and linearity
- High efficiency
- 500MHz to 1400MHz operation
- Excellent ruggedness
 - Capable of 10:1 VSWR
- Integrated ESD protection
- Low thermal resistance
- RoHS compliant

RADAR and Commercial Avionics Product Line

Product	Operating Frequency (MHz)	Matching	@P _{1dB}			@P _{3dB}			Pulse	VSWR	Package Type
			P _{OUT} (W)	Gain (dB)	Eff (%)	P _{OUT} (W)	Gain (dB)	Eff (%)			
PTVA030121EA	390 – 450	Unmatched	12	25.0	69	14	22.0	73	12μs, 10% DC	13:1	H-36265-2
PTVA035002EV	390 – 450	Unmatched	400	19.5	65	500	17.5	67	12μs, 10% DC	13:1	H-36275-4
new PTVA102001EA	1030 / 1090	I	200	18.0	57	230	16.0	58	128μs, 10% DC	10:1	H-36265-2
PTVA104501EH	960 – 1215	I/O	450	17.0	57	490	15.0	55	128μs, 10% DC	10:1	H-36288-2
PTVA101K02EV	1030 / 1090	I	920	18.0	56	1090	16.0	57	128μs, 10% DC	10:1	H-36275-4
PTVA120251EA	500 – 1400	Unmatched	30	16.0	56	40	14.0	59	300μs, 10% DC	10:1	H-36265-2
PTVA120501EA	1200 – 1400	I	54	16.5	55	63	14.5	57	300μs, 10% DC	10:1	H-36265-2
PTVA123501EC/FC	1200 – 1400	I/O	375	17.0	55	415	14.0	57	300μs, 12% DC	10:1	H-36248-2 / H-37248-2
PTVA127002EV	1200 – 1400	I/O	700	16.0	56	800	14.0	58	300μs, 10% DC	10:1	H-36275-4

UHF/Broadcast Product Line

Product	Operating Frequency (MHz)	Matching	DVB-T Characteristics				VSWR	Package Type
			P _{OUT} (W)	Gain (dB)	Eff (%)	ACPR (dBc)		
PTVA042502EC/FC	470 – 806	I	55	19.0	25.5	-29.5	10:1	H-36248-4 / H-37248-4
PTVA043502EC	470 – 860	I	70	17.5	25.0	-30.0	10:1	H-36248-4
PTVA047002EV	470 – 806	I	130	17.5	29.0	-29.0	10:1	H-36275-4

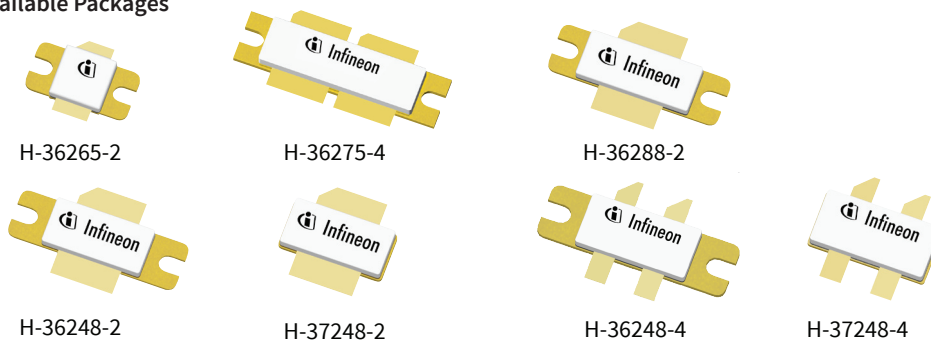
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High Ruggedness Transistors for 500MHz to 1400MHz

Evaluation Circuits

Product	Demo Circuit P/N	Frequency (MHz)	Description
PTVA030121EA	LTN/PTVA030121EA V1	450	Rogers 4350
PTVA035002EV	LTN/PTVA035002EV V1	450	TMM10
PTVA042502EC / PTVA042502FC	LTN/PTVA042502EC V1 or LTN/PTVA042502FC V1	470 – 806	Rogers 4350
PTVA043502EC	LTN/PTVA043502EC V1	470 – 860	Rogers 4350
PTVA047002EV	LTN/PTVA047002EV V1	470 – 806	Rogers 4350
PTVA104501EH	LTN/PTVA104501EH V1	960 – 1215	Rogers 3010
PTVA102001EA	LTN/PTVA102001EA V1	1030 / 1090	Rogers 6006
PTVA101K02EV	LTN/PTVA101K02EV V1	1030	Rogers 6006
	LTN/PTVA101K02EV E4	1090	Rogers 6006
	LTN/PTVA101K02EV E6	1090	Rogers 3010
	LTN/PTVA101K02EV E8	1030	Rogers 3010
PTVA120251EA	LTN/PTVA120251EA V1	1200 – 1400	Rogers 6006
	LTN/PTVA120251EA E2	1200 – 1400	Rogers 3010
	LTN/PTVA120251EA E3	470 – 860	Rogers 4350B
	LTN/PTVA120251EA E4	960 – 1215	Rogers 3010
PTVA120501EA	LTN/PTVA120501EA V1	1200 – 1400	Rogers 3010
	LTN/PTVA120501EA E2	960 – 1215	Rogers 3010
PTVA123501EC / PTVA123501FC	LTN/PTVA123501EC V1 or LTN/PTVA123501FC V1	1200 – 1400	Rogers 6006
	LTN/PTVA123501EC E2	1200 – 1400	Rogers 3010
PTVA127002EV	LTN/PTVA127002EV V1	1200 – 1400	Rogers 3010

Available Packages



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For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices please contact your nearest Infineon Technologies office (www.infineon.com).

Warnings

Due to technical requirements, our products may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies office.

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