

Product Specification

P1935

Power Amplifier 1880-1920 MHz, 35 dB min. Gain @ 1900 Hz @ 33.5 dBm Output



FEATURES

- 1.9 GHz Power Amplifier Module
- Typical 33.5 dBm output power
- Excellent adjacent leakage power
- Typical 35.7 dB power gain
- Low cost metal package

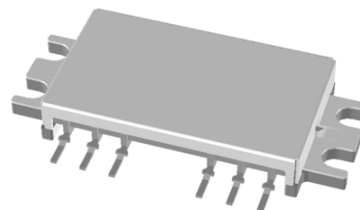
APPLICATION

- Final stage power amplifier of base station for PHS

DESCRIPTION

- The P1935 is a high performance 1.9 GHz band power amplifier offering excellent linearity. The device provides 33.5 dBm output power with a typical 35.7 dB gain at 1.9 GHz. It is housed in a cost effective metal package and operates from +10 V and -5 V power supplies.

P1935



Power Amplifier

1880-1920 MHz
35 dB min. Gain @ 1900MHz

LIMITING VALUES

Notes: Operating the device above these parameters may cause permanent damage, Case Temperature $T_c=25^\circ\text{C}$

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
V_1	DC supply voltage	-	12	V
V_2		-	-7	V
P_{in}	Input Power	-	10	dBm
T_{stg}	Storage Temperature	- 40	+ 95	$^\circ\text{C}$
T_{opt}	Operating Temperature	- 20	+ 80	$^\circ\text{C}$

CHARACTERISTICS

Table 1: Test condition 25°C

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
f	Frequency	P _{out} =33.5 dBm V ₁ = 10 V V ₂ = -5 V	1880		1920	MHz
I _d	Supply Current		-	1200	1270	mA
G _a	Power Gain		35	35.7	-	dB
	Input VSWR		-	1.5	2.5	-
2f ₀	Harmonic Distortion		-	-55	-40	dBc
3f ₀			-	-55	-36	dBc
Padj1	Adjacent Channel	± 600 kHz	-	-64	-61	dBc
Padj2	Leakage Power ¹⁾	± 900 kHz	-	-71	-69	dBc

Notes:1) RF signal modulation is per PHS RCR-28

Product Specification

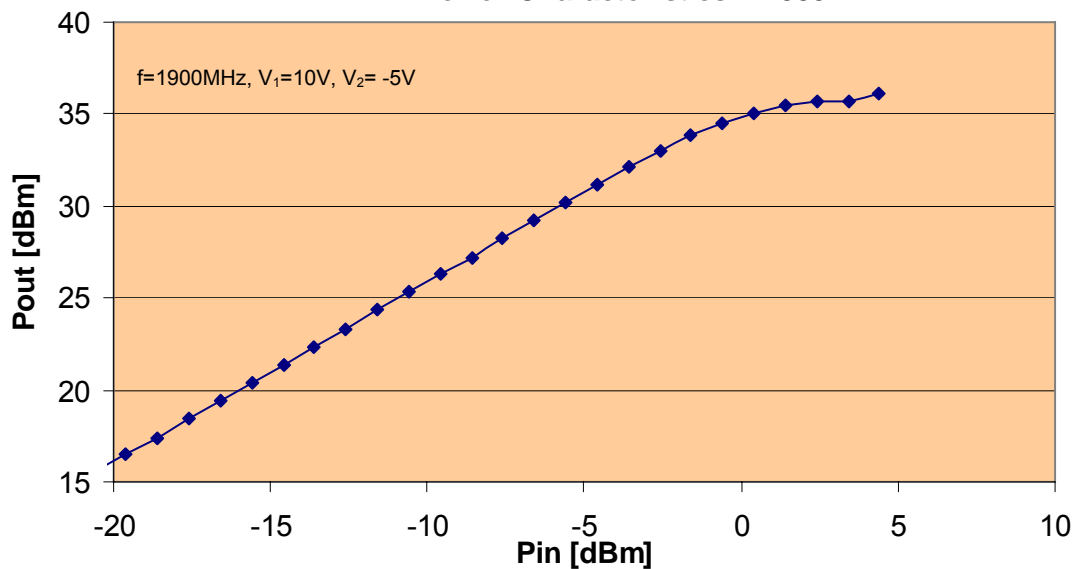
P1935

Power Amplifier 1880-1920 MHz, 35 dB min. Gain @ 1900 Hz @ 33.5 dBm Output

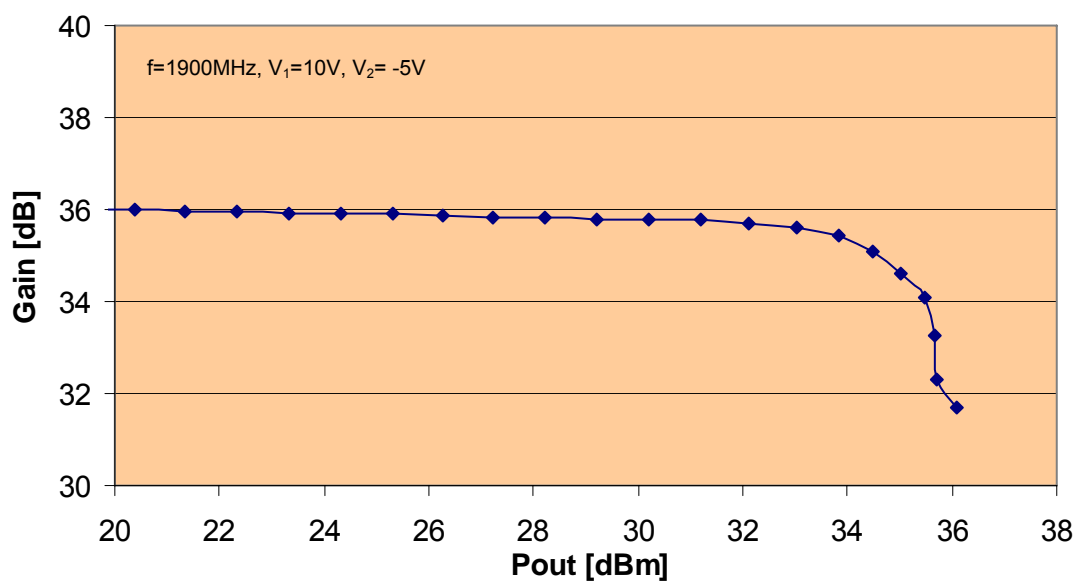


PDI

Power Characteristics: P1935



Gain vs. Pout: P1935



Product Specification

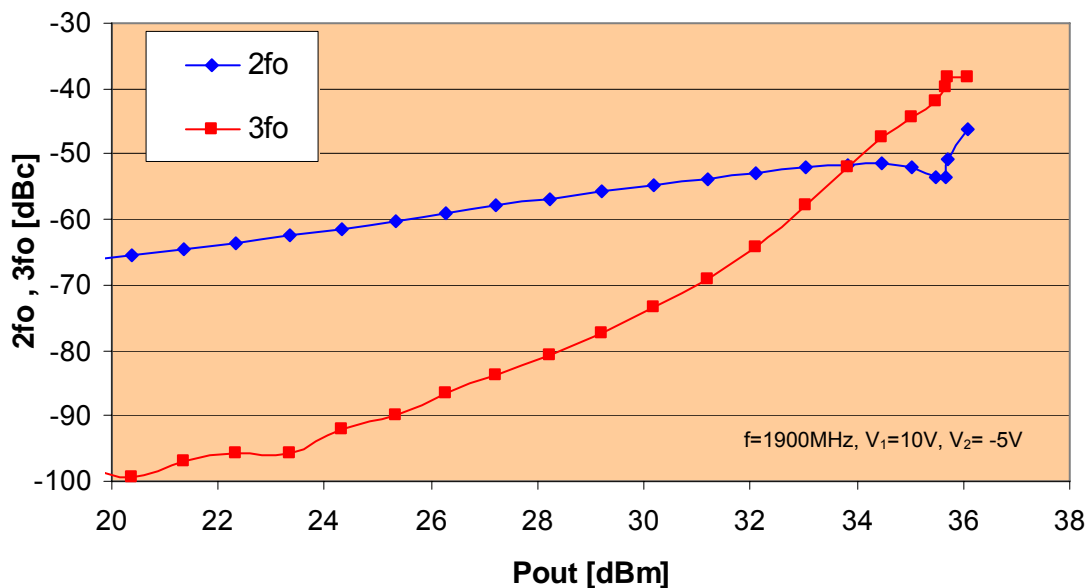
P1935

Power Amplifier 1880-1920 MHz, 35 dB min. Gain @ 1900 Hz @ 33.5 dBm Output

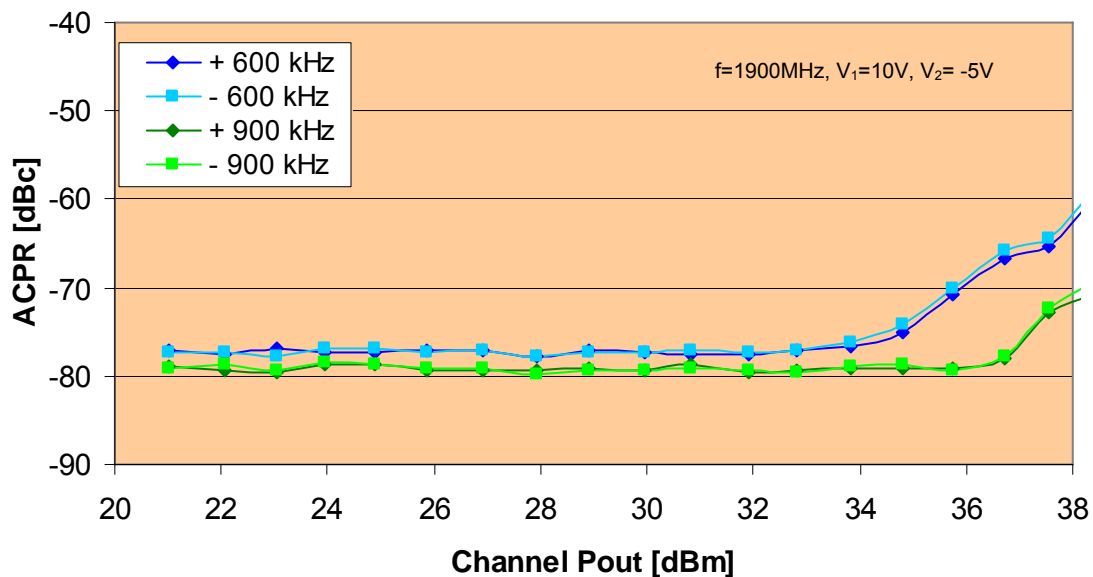


PDI

Harmonic Distortion: P1935



ACPR: P1935



Product Specification

P1935

Power Amplifier 1880-1920 MHz, 35 dB min. Gain @ 1900 Hz @ 33.5 dBm Output



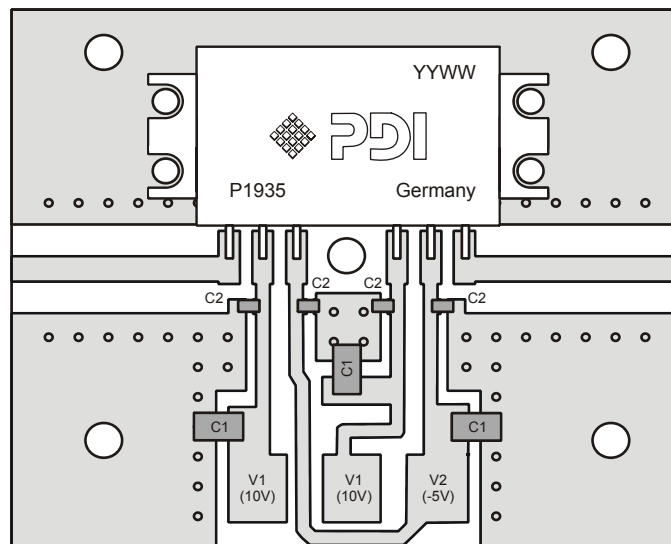
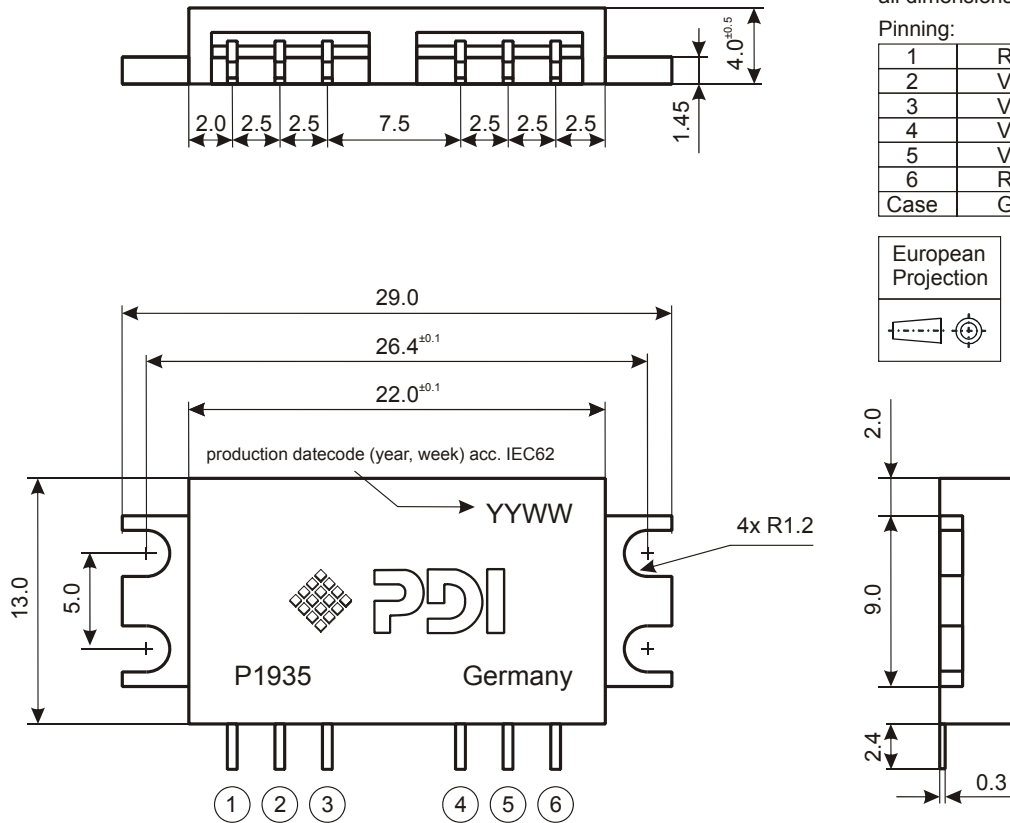
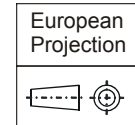
PDI

Notes:


all dimensions in mm

Pinning:

1	RFout
2	V1 (10V)
3	V2 (-5V)
4	V1 (10V)
5	V2 (-5V)
6	RFIn
Case	Ground



C1	1 μ F
C2	0.1 μ F

<p align="center">Product Specification</p> <p align="center">P1935</p> <p align="center">Power Amplifier 1880-1920 MHz, 35 dB min. Gain @ 1900 Hz @ 33.5 dBm Output</p>	
--	---

DEFINITIONS

Data Sheet Status	
Objective Product Specification	This data sheet contains target or goal specifications for product development.
Preliminary Product Specification	This data sheet contains preliminary data; supplementary data may be published later.
Product Specification	This data sheet contains final product specifications.
Limiting values	
Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 60134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.	
Application information	
Where application information is given, it is advisory and does not form part of the specification.	

Premier Devices reserves the right to make changes without further notice to any products herein. Premier Devices makes no warranty representation or guarantee regarding the suitability of its products for any particular purpose, nor does Premier Devices assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters which may be provided in Premier Devices datasheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Premier Devices does not convey any license under its patent rights nor the rights of others. Premier Devices products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Premier Devices product could create a situation where personal injury or death may occur. Should Buyer purchase or use Premier Devices products for any such unintended or unauthorized application, Buyer shall indemnify and hold Premier Devices and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, and claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Premier Devices was negligent regarding the design or manufacture of the part.

© Premier Devices Germany GmbH 2006

How to contact us:



Loeffelholzstrasse 20, D-90441 Nuernberg, Germany
Phone: +49 (0) 911 9411 233, FAX: +49 (0) 911 9411 198,
Email: sales.germany@premierdevices.com, Internet: <http://www.premierdevices.de/>