

PRE-RELEASE PTH 31001*

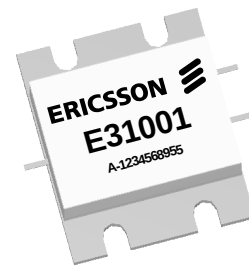
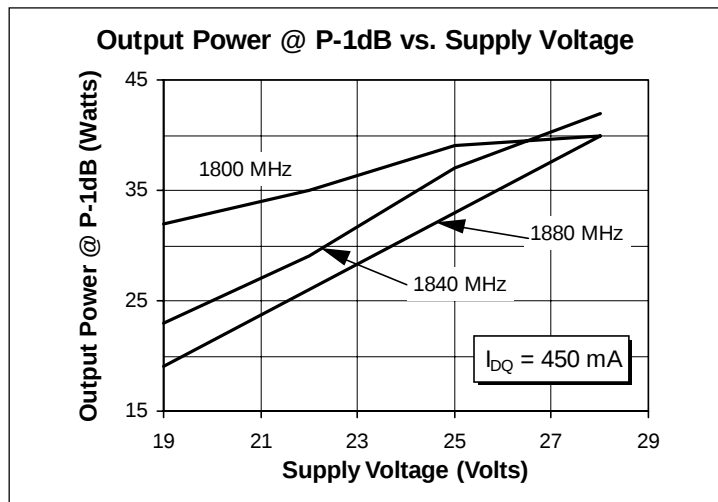
35 Watts, 1800–1900 MHz

50-Ohm Power Hybrid

Description

The PTH 31001 is a 50 ohm power hybrid intended for applications requiring linear power amplification in the PCS frequency range. The part is designed to operate with 50 ohm source and load impedances and includes bias circuitry with temperature compensation. The design is intended to simplify system design and save space with an overall size of less than one square inch. 100% lot traceability is standard.

- Guaranteed Performance at 1900 MHz, 28 V
 - Output Power = 35 Watts (P-1dB)
 - Power Gain = 12 dB Typ
 - Efficiency = 40%
- Rugged Hybrid Design
- Input Decoupling
- High Single Stage Gain
- Excellent Linearity
- Input VSWR less than 1.5:1
- Gold Metallization



Package A

Performance Characteristics

Parameter	Symbol	Min	Typ	Max	Units
Frequency Range $V_{DD} \text{ (Nom.)} = 28$, $I_{DQ} \text{ (Nom., Adjustable)} = 475 \text{ mA}$	f	1800	—	1900	MHz
Power Gain $V_{DD} \text{ (Nom.)} = 28$, $I_{DQ} \text{ (Nom., Adjustable)} = 475 \text{ mA}$	G_p	11	12	—	dB
Output Power at 1 dB Compressed $V_{DD} \text{ (Nom.)} = 28$, $I_{DQ} \text{ (Nom., Adjustable)} = 475 \text{ mA}$	P-1dB	35	40	—	W
Input VSWR $V_{DD} \text{ (Nom.)} = 28$, $I_{DQ} \text{ (Nom., Adjustable)} = 475 \text{ mA}$	ψ	1.3:1	—	1.6:1	—
Efficiency at P-1dB $V_{DD} \text{ (Nom.)} = 28$, $I_{DQ} \text{ (Nom., Adjustable)} = 475 \text{ mA}$	η	35	40	—	%

* Note: Specifications for this product are preliminary and subject to change without notice. Please contact your sales representative for further product information. Complete product information is available on our Website at: www.ericsson.com/rfpower.

Maximum Ratings

Parameter	Symbol	Value	Unit
Supply Voltage	V_{DD}	32	Vdc
Bias Current	I_{DQ}	1000	mA
Operating Temperature	T_{flange}	90	°C
Total Device Dissipation at $T_{flange} = 25^{\circ}\text{C}$ Above 25°C derate by	P_D	TBD	Watts W/°C
Storage Temperature	T_{STG}	125	°C

Typical Performance

