



Overview

BGT70

Summary of Features:

- Developed for telecommunication only
 - Support FDD and TDD systems (in full duplex or half-duplex mode)
 - Support modulation schemes: QPSK, QAM
 - Support small cell backhaul (up to 1000m)
 - Support Macrocell backhaul (external PA needed depending on output power requirement)
 - Direct conversion I/Q transceiver
 - IF bandwidth 1000MHz
 - Differential RF/IF interface for lower loss and better isolation
 - Integration of VCO (Voltage Controller Oscillator) signal generation
 - PNssb (Phase Noise single side band) < -80dBc/Hz @100kHz offset
 - 10dBm linear output power (sufficient for small cells)
 - 7dB NF (Noise Figure)
 - Integrated power detection function
 - Integrated thermal sensor
 - eWLB (embedded Wafer Level Ball Grid Array) packaged device
- ▶ [see all](#)

Benefits:

- Packaged solution, easy to use and standard SMT flow formounting on customer system
 - Highly integrated RF transceiver requiring no external RF discretes, thereby simplifying the customer design and time-to-market
 - Architecture of Direct Conversion Zero IF eases interface to latest modem/BB designs (no external filter)
 - A transceiver approach with implemented BIST (Built-In Self-Test) on the chip to enable RF testing at Infineon production
 - Family concept (common architecture, package, pinning) simplifies customer designs due to modular approach
- ▶ [see all](#)



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Support



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Technical Documentation



Documents

Title	Updates	Size	Date	Version	Language
Application Notes					
AN377 - BGT70 Single-Chip SiGe Transceiver Chipset for E-band Backhaul Applications from 71 to 76 GHz					
		1.6 MB	04 Jul 2014	01_00	
Select all Download selected					

Parametrics

BGT70									
Frequency	P _{1st} (typ)	Rx Gain (typ)	NF _{DSB} (typ)	I _{CCRt} / T _t	PN (@100kHz typ)				
71.0-76.0 GHz	14.0 dBm	20.0 dB	8.0 dB	350/480 mA @ 3.3V	-80 dBc/Hz				
<table><tr><td>Power Detector (-)</td><td>Temperature Sensor</td></tr><tr><td>Integrated</td><td>Integrated</td></tr></table>						Power Detector (-)	Temperature Sensor	Integrated	Integrated
Power Detector (-)	Temperature Sensor								
Integrated	Integrated								

Presentation & Brochures



Development Support



Buy



Sales Product Name	OPN	Product Status	Order online	Package Name	Totally lead-free	Halo-free	RoHS	Packing Size	Packing Type	Moisture Level
BGT70	BGT70E6327XTSA1	in production		WFWLB-119-1	yes	yes	yes	1000	TAPE & REEL	1

Applications



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