

POWERPLEX™

PowerPlex

POWER AMPLIFIER

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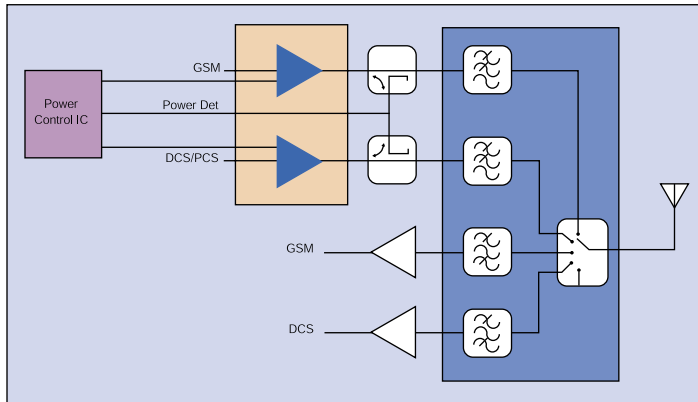
HARMONIC FILTERS

InGaP HBT · pHEMT · IPP · Low Cost Module

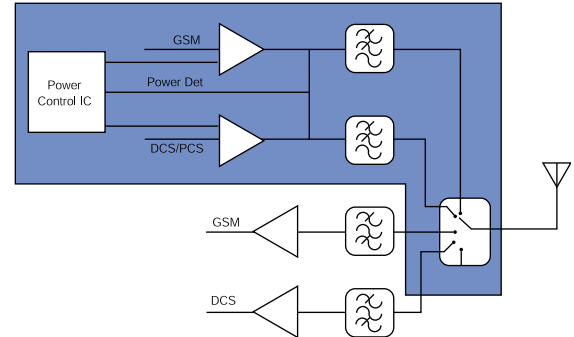
The PowerPlexer™ Advantage

- Boost Handset Talk Times/Standby Times
- Slash RF System Footprint
- Shorten Handset Time to Market
- Decrease RF system component count
- Reduce overall cost of RF system

Current Solution



PowerPlexer™



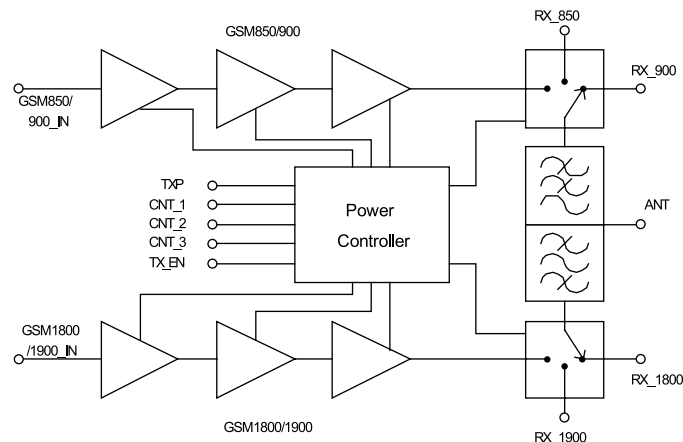
PowerPlexer™ at a Glance

ANADIGICS' PowerPlexer™ integrates a Power Amplifier, RF Switch, Coupler, Power Control and Harmonic Filters to form a unique, highly efficient solution for portable wireless system designs. Now manufacturers have a single RF transmit device that will ensure improved signal strength, talk time, and voice and data quality, while still preserving enough power to enable all the functionality demanded by today's feature-hungry consumers.

PowerPlexer™ Highlights

- Optimum design of interfaces for best efficiency and spurious performance.
- Higher efficiencies over wider output power ranges
- Guaranteed antenna performance – 100% RF Tested.
- Integrated PA Bias Control and Switch Decoder CMOS IC.
- Reduced size
- module package

AWT6201 Functional Block Diagram



AWT6201 Quad Band PowerPlexer™ Module

The AWT6201 is the second generation GSM Power Plexer. The module includes two dual band power amplifiers to support SM850/900/1800/1900, power control circuitry, harmonic filtering and RX/TX switching. It has been developed to minimize time to market for GSM handset/PDA designers and insures simple phone assembly with consistent electrical performance.



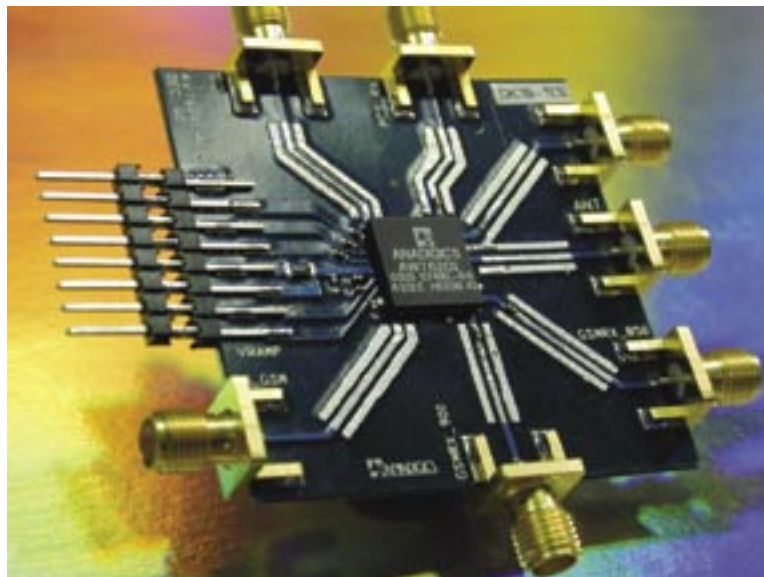
The module requires only the most basic interconnects. All the RF ports are 50 ohms. The power control interfaces directly with the baseband power control DAC and the controller supports both 1.8V and 2.7V logic. Only a single power supply voltage is needed for operation. The part is full compliant with GSM harmonic requirements. The antenna port is protected against ESD to 12KV.

Features:

- Quad Band Operation with 4 Receive Ports
- Configurable for UMTS Operation
- Single 3.5V Operation
- Integrated Power Control Loop
- High Gain PAs with 0dBm Nominal Input
- Class 4 Output Power
- GPRS Capable (4 TX slots)
- Fully Compliant GSM Harmonic Performance
- InGaP HBT PAs with Excellent Temperature Stability
- Low Loss Receive Switches Using pHEMT Technology
- High Isolation Switches (TX to RX, RX on/off)
- Simple Logic Controlling Both PAs and Switches
- ESD Protected Antenna Port (12KV)
- Small Footprint (10.5mm x 11mm x 1.55mm)
- ANADIGICS Developed HBT/pHEMT/IPP Technology
- High Volume Low Cost Laminate/Overmold Technology

Part Number	Package Size (mm)	Frequency (MHz)	Pout/Pin GSM (dBm)	Pout/Pin DCS (dBm)	Efficiency GSM/DCS	OP1dB (dBm)
AWT6201	10.5 x 11 x 1.55	GSM850/900: 824-849 / 880-915 DCS/PCS: 1710-1785 / 1850-1910	33.8	31.5	GSM850/900: 38% DCS/PCS: 32%	-

Evaluation Board



The Right Solutions

You'll find that when it comes to size, multi-band operation and power efficiency, ANADIGICS has proven itself to be one of the most innovative designers and manufacturers of integrated circuits in the global wireless marketplace. By providing solutions for the North American, European, and growing Asian marketplace, the Company has established itself as a leading industry partner and contributor to our generation's journey toward a truly wireless society.

At ANADIGICS, you can rely on radio frequency (RF) experts to provide you with power amplifiers, switches, and integrated front end modules that have been adopted in cellular and PCS handsets, as well as WLAN systems, by the world's leading original equipment manufacturers. It is our mission to provide you with reliable solutions that can be quickly and easily integrated into portable wireless products, helping you to achieve a faster time-to-market. In today's competitive marketplace, a matter of weeks can be crucial.

We'll provide you with the power that enables your wireless product users to have longer talk-time and standby time. We'll provide you with the technology that enables your handsets to offer more functionality than ever before, and enables you to develop third-generation handsets and beyond. And, you can count on ANADIGICS to provide the consistency that ensures your handset and PDA users have reliable access, time-after-time, with voice and data quality comparable to land lines.

The Right Technology

As an ANADIGICS customer you'll benefit from our investment in state-of-the-art manufacturing facilities and the cost savings of our six-inch GaAs wafer manufacturing capability. And through our InGaP HBT, pHEMT and integrated passive processes, we are able to guarantee high volumes of high quality products to satisfy your commercial applications in the emerging wireless marketplace.

Technology, however, means nothing without the backing of our world-class applications support team, which has been developed to ensure that you receive the right products, on-time, to make your wireless product designs a reality.

The Right Supplier – ANADIGICS



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微波光电部专业代理经销高频、微波、光纤、光电元器件、组件、部件、模块、整机；电磁兼容元器件、材料、设备；微波 CAD、EDA 软件、开发测试仿真工具；微波、光纤仪器仪表。欢迎国外高科技微波、光纤厂商将优秀产品介绍到中国、共同开拓市场。长期大量现货专业批发高频、微波、卫星、光纤、电视、CATV 器件：晶振、VCO、连接器、PIN 开关、变容二极管、开关二极管、低噪晶体管、功率电阻及电容、放大器、功率管、MMIC、混频器、耦合器、功分器、振荡器、合成器、衰减器、滤波器、隔离器、环行器、移相器、调制解调器；光电子元件和组件：红外发射管、红外接收管、光电开关、光敏管、发光二极管和发光二极管组件、半导体激光二极管和激光器组件、光电探测器和光接收组件、光发射接收模块、光纤激光器和光放大器、光调制器、光开关、DWDM 用光发射和接收器件、用户接入系统光收发器件与模块、光纤连接器、光纤跳线/尾纤、光衰减器、光纤适配器、光隔离器、光耦合器、光环行器、光复用器/转换器；无线收发芯片和模组、蓝牙芯片和模组。

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