

AL7230

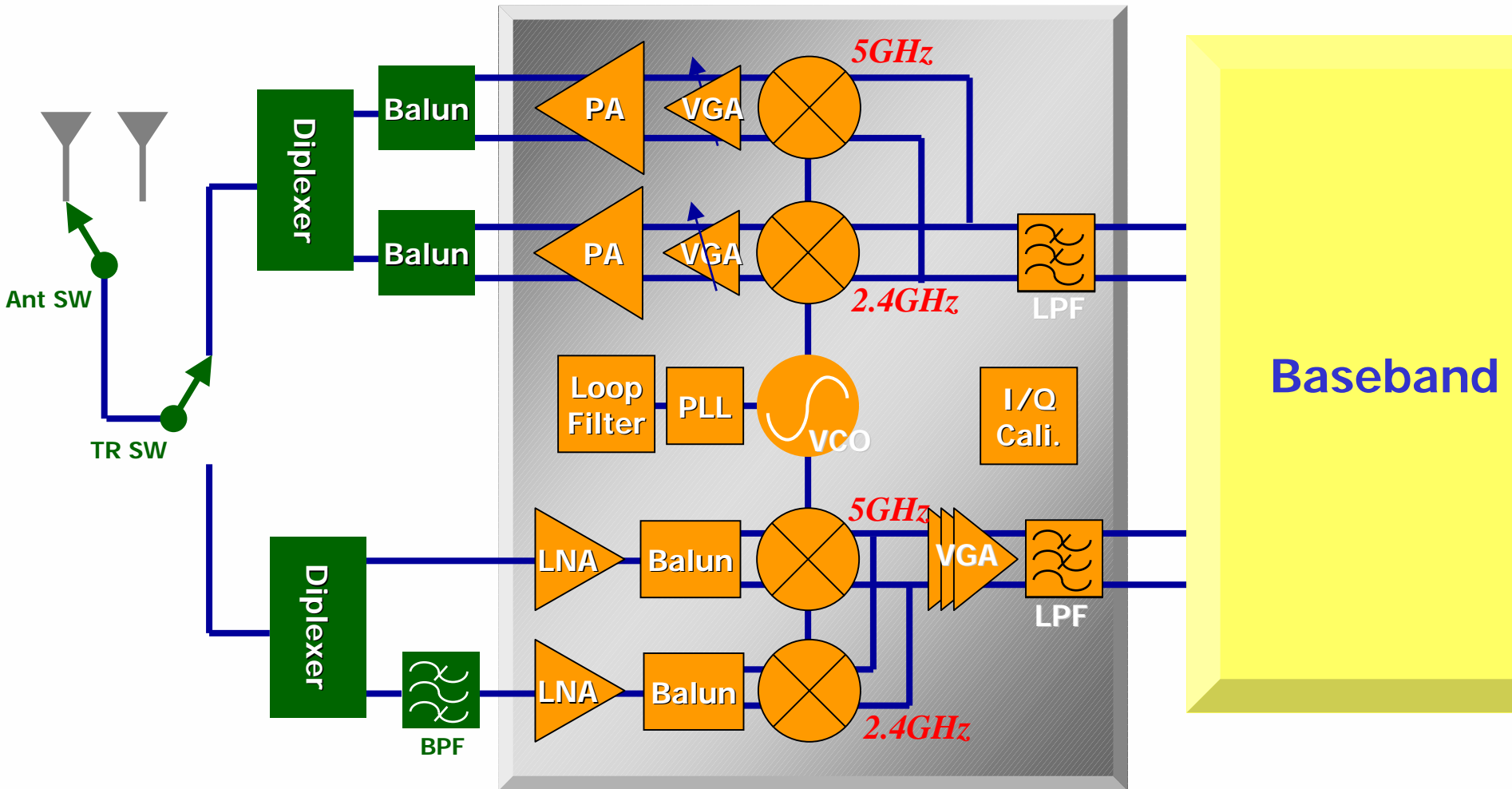
The World First and Only 802.11a/b/g RF IC
With Embedded Dual-band PA

Key Features of AL7230

- Dual-band (2.4 & 5 GHz), Tri-mode (a/b/g)
 - 4.9~5.9 GHz full band coverage
- **Lowest component count**
 - PA embedded
 - VCO, LNA, Balun, PD, LF ...
- Direct Conversion (ZIF)
 - No IF SAW
- **Lowest BOM cost**
- Least matching efforts
- Smallest solution area
- **Auto I/Q calibration**



AL7230 Architecture



RF RBOM Cost Analysis (11a/b/g)

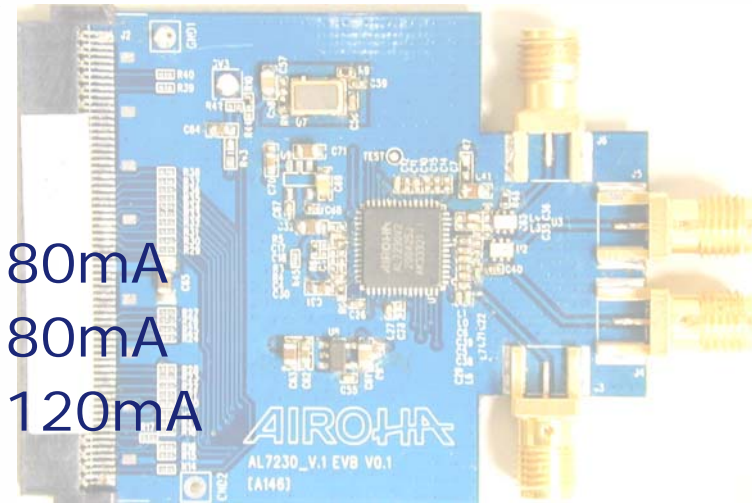


	Airoha	Maxim	Atheros	Conexant	Unit \$
Balun	2	2	2	2	\$0.09
Switch	2	2	2	2	\$0.10
Regulator	1	2	1	1	\$0.10
LPF			1	2	\$0.10
BPF	1	2	3	1	\$0.11
Diplexor	2	2	1	2	\$0.18
LNA			2		\$0.20
VCO				1	\$0.50
2.4GHz PA		1	1	1	\$0.40
5GHz PA		1	1	1	\$1.00
Cost	\$0.94	\$2.56	\$2.89	\$3.04	(USD)

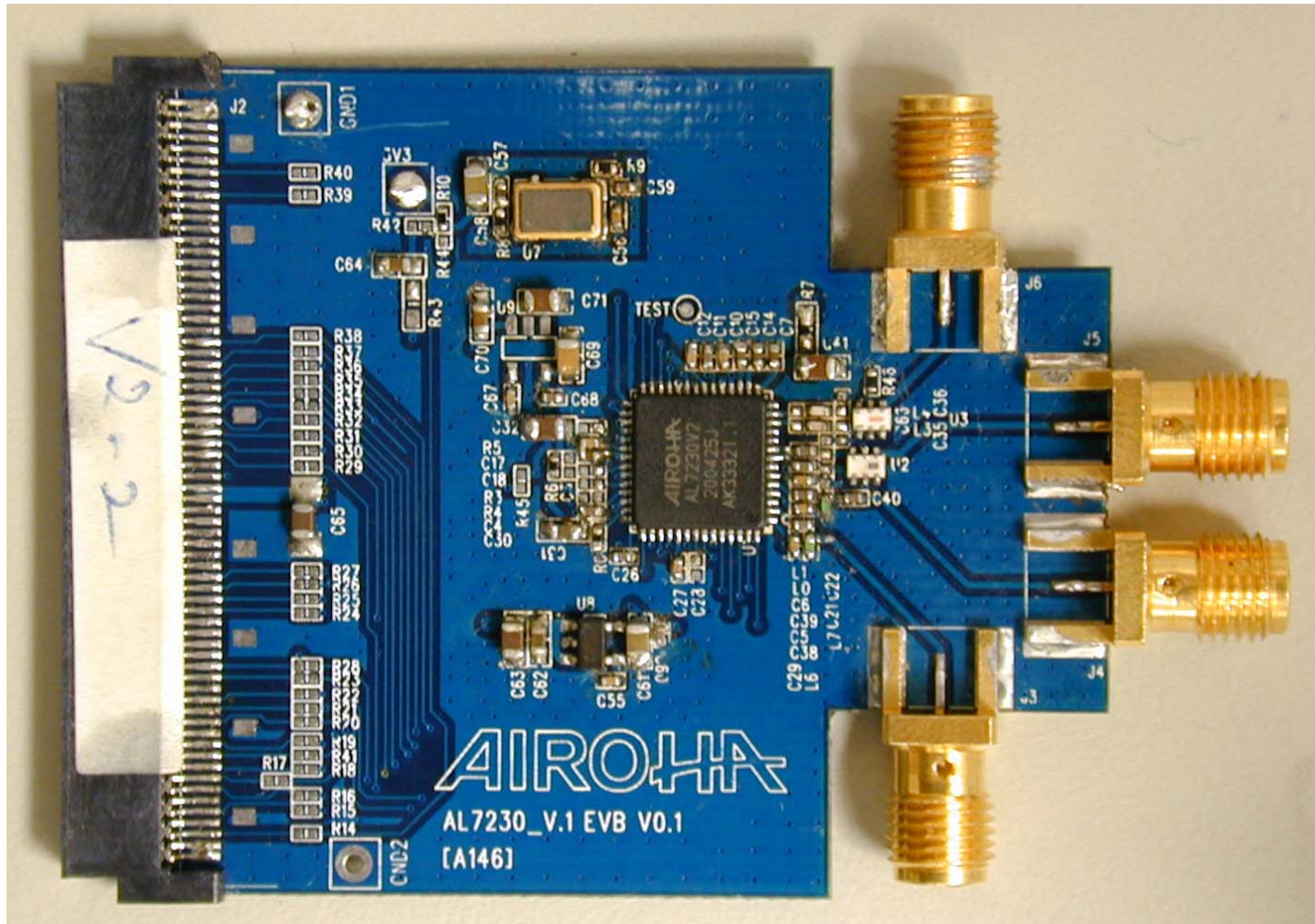
2.7~3.2 times higher than Airoha !!

Technical Spec

- Operating frequency: 2.4~2.5/4.9~5.925 GHz
- Operating temperature: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
- QFN 56 pin; $8 \times 8 \text{mm}^2$
- Integrate PA
 - 2.4GHz: P_{out} 21/17dBm for CCK/OFDM
 - 5GHz: P_{out} 15Bm
- Integrate PA power detector
- Three-wire control interface
- Current consumption:
 - 11b: Tx: 300mA@21dBm; Rx: 80mA
 - 11g: Tx: 260mA@17dBm; Rx: 80mA
 - 11a: Tx: 370mA@15dBm; Rx: 120mA
 - Sleep mode: 5uA



AL7230 Evaluation Board



Baseband Partners



ViA Networking



Summary

Top 5 Reasons to Choose Airoha

- 👍 **Most integrated RF solution**
 - ✓ lowest component count
 - ✓ smallest solution area
- 👍 **Lowest BOM cost RF solution**
- 👍 **Best performance RF solution**
- 👍 **Best Support/Service RF company**
 - ✓ experienced R&D team
 - ✓ Taiwan-based → close to customer → support
- 👍 **Most compatible RF solution**
 - ✓ compatible w/ existing and coming BB chips

AIROHA

*Your Virtual RF Team
to Make Business Real*

