DATA SHEET

Part No.	AN26260A
Package Code No.	ULGA054-W-5234

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Contents

AN26260A

Receive RF IC for WCDMA (Dual Band)

■ Overview

- AN26260A is WCDMA receive RFIC that is planned to use for dual band WCDMA in Japan.
  AN26260A is consisted of RF amplifiers (i.e. LNA2), direct conversion demodulators, VCOs, synthesizer and baseband path.
  There is able to build the WCDMA receive RF block with external LNA and RF-filter.
- This IC is expecting to use with the WCDMA transmit RFIC ;AN26261A.

■ Features

- Direct conversion receive RFIC for dual band WCDMA with the on-chip VCOs.
- Receive frequencies : 2 110 MHz to 2 170 MHz, 875 MHz to 900 MHz.
- Current consumption : 29.9 mA(typ.)-2 GHz mode, 28.8 mA(typ.)-800 MHz mode.

■ Applications

- WCDMA single, dual band terminals.

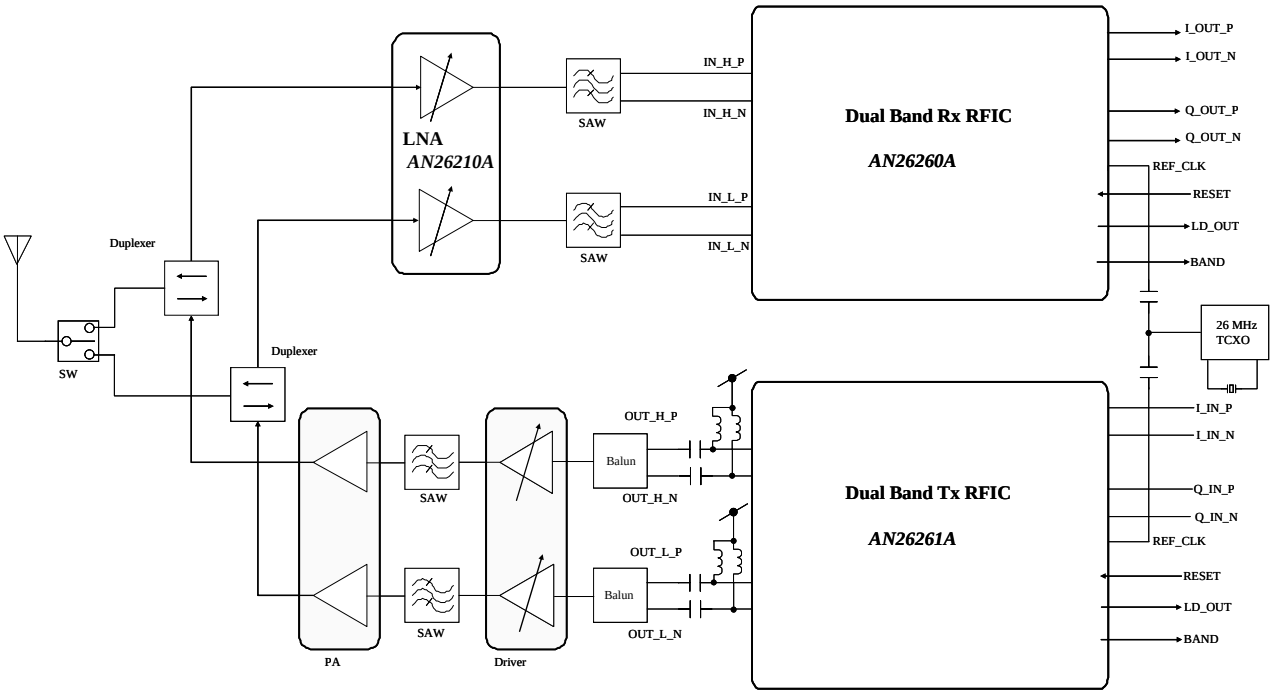
■ Package

- Wafer level chip size package (WLCSP).
  Size : $3.37 \times 5.17 \times 0.8$ mm^3

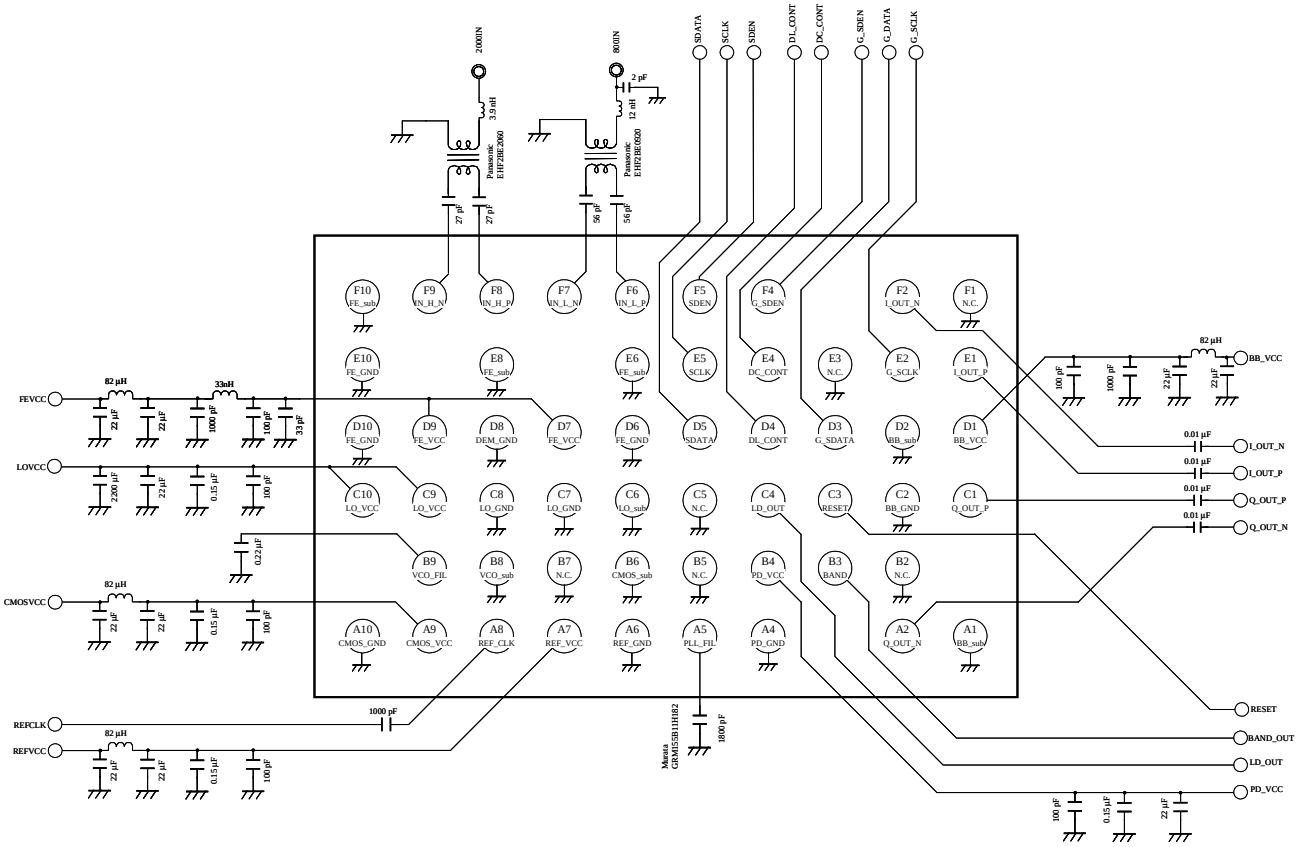
■ Type

- SiGe monolithic Bi-CMOS IC.

■ Application Circuit Example



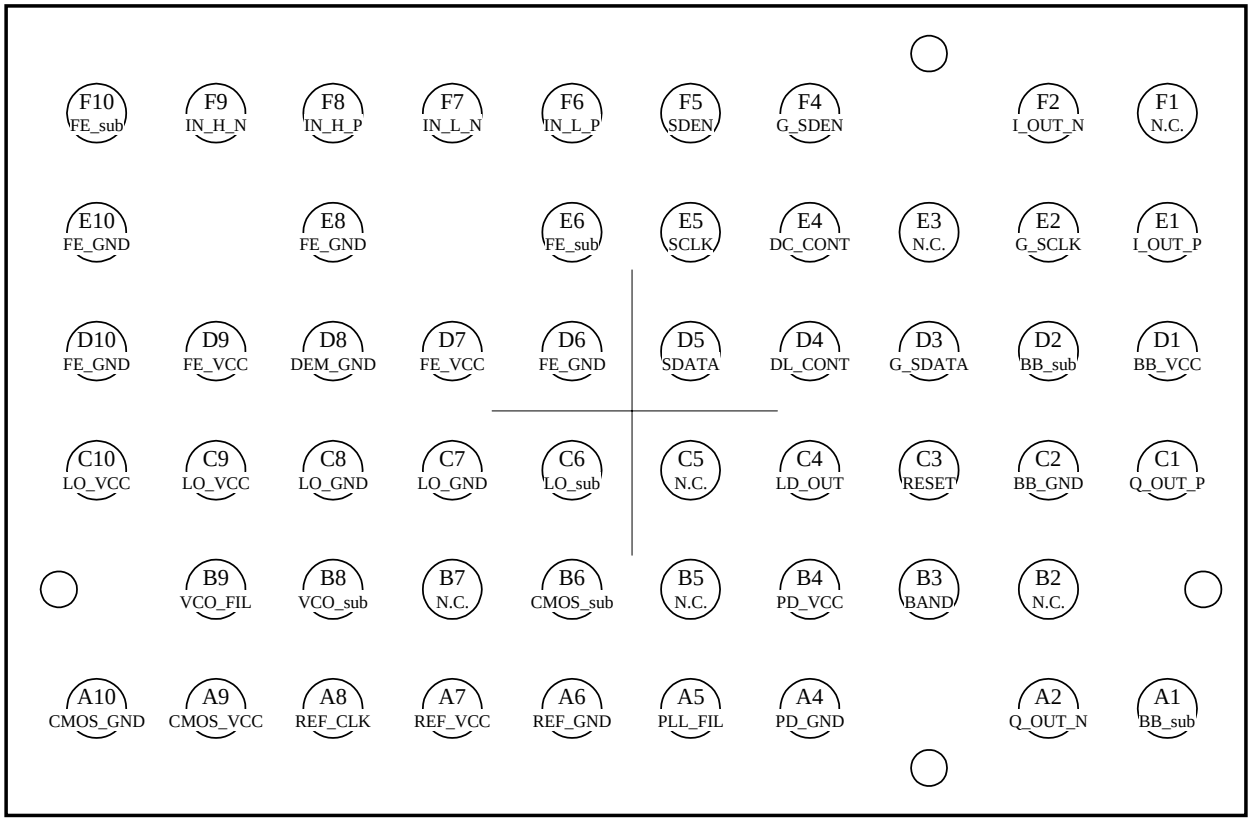
■ Test Circuit Diagram (Top View)



■ Pin Out

The figure below shows pin layout is ‘ top view ’.

Top view



■ Pin Descriptions

Pin No.	Pin name	Type	Description
A1	BB_sub	Ground	Baseband substrate
A2	Q_OUT_N	Out	Q channel baseband negative output
A3	—	—	No pin
A4	PD_GND	Ground	Phase detector ground
A5	PLL_FIL	InOut	PLL loop filter
A6	REF_GND	Ground	Reference clock amplifier ground
A7	REF_VCC	Supply	Reference clock amplifier supply
A8	REF_CLK	In	Reference clock input
A9	CMOS_VCC	Supply	CMOS logic supply
A10	CMOS_GND	Ground	CMOS logic ground
B1	—	—	No pin
B2	N.C.	—	No connection or ground
B3	BAND	Out	Band selector output
B4	PD_VCC	Supply	Phase detector supply
B5	N.C.	—	No connection or ground
B6	CMOS_sub	Ground	CMOS logic substrate
B7	N.C.	—	No connection or ground
B8	VCO_sub	Ground	VCO substrate
B9	VCO_FIL	InOut	VCO ripple filter
B10	—	—	No pin
C1	Q_OUT_P	Out	Q channel baseband positive output
C2	BB_GND	Ground	Baseband ground
C3	RESET	In	Reset signal input
C4	LD_OUT	Out	Synthesizer lock detector output
C5	N.C.	—	No connection or ground
C6	LO_sub	Ground	Local substrate
C7	LO_GND	Ground	Local ground
C8	LO_GND	Ground	Local ground
C9	LO_VCC	Supply	Local supply
C10	LO_VCC	Supply	Local supply

■ Pin Descriptions (continued)

Pin No.	Pin name	Type	Description
D1	BB_VCC	Supply	Baseband supply
D2	BB_sub	Ground	Baseband substrate
D3	G_SDATA	In	Serial data input for gain control
D4	DL_CONT	In	synthesizer double latch switch
D5	SDATA	In	Serial data input
D6	FE_GND	Ground	Front-end ground
D7	FE_VCC	Supply	Front-end supply
D8	DEM_GND	Ground	Demodulator ground
D9	FE_VCC	Supply	Front-end supply
D10	FE_GND	Ground	Front-end ground
E1	I_OUT_P	Out	I channel baseband positive output
E2	G_SCLK	In	Serial clock input for gain control
E3	N.C.	—	No connection or ground
E4	DC_CONT	Out	DC offset removal detector output
E5	SCLK	In	Serial clock input
E6	FE_sub	Ground	Front-end substrate
E7	—	—	No pin
E8	FE_GND	Ground	Front-end Ground
E9	—	—	No pin
E10	FE_GND	Ground	Front-end Ground
F1	N.C.	—	No connection or ground
F2	I_OUT_N	Out	I channel baseband negative output
F3	—	—	No pin
F4	G_SDEN	In	Serial enable input for gain control
F5	SDEN	In	Serial enable
F6	IN_L_P	In	800 MHz band positive input
F7	IN_L_N	In	800 MHz band negative input
F8	IN_H_P	In	2 GHz band positive input
F9	IN_H_N	In	2 GHz band negative input
F10	FE_sub	Ground	Front-end substrate

■ Absolute Maximum Ratings

A No.	Parameter	Symbol	Rating	Unit	Notes
1	Supply voltage	V_{CC}	0 to 3.6	V	*1
2	Supply current	I_{CC}	40	mA	—
3	Power dissipation	P_D	69.3	mW	*2
4	Operating ambient temperature	T_{opr}	–25 to +85	°C	*3
5	Storage temperature	T_{stg}	–55 to +125	°C	*3
6	DC input voltage	VI	0 to V_{CC} + 0.3 and less than 3.6	V	*1, *4

Notes) *1 : The supply voltage is shown the value under the condition which not exceeds the absolute maximum ratings and the power dissipation.

*2 : The power dissipation is shown the value at T_a = 85°C for the independent (non-mounted) IC package without a heat sink.
In case of use this IC, please refer to the P_D-T_a diagram of the package standard and use under the condition not exceeding the allowable value.

*3 : Except for the power dissipation, operating ambient temperature, and storage temperature, all ratings are for T_a = 25°C.

*4 : Tolerable input voltages of logical input SCLK, SDATA, SDEN, G-SCLK, G-SDATA, G-SDEN, RESET, DL-CONT pins

■ Operating supply voltage range

Parameter	Symbol	Range	Unit	Notes
Supply voltage range	V_{CC}	2.7 to 3.0	V	—

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