DATA SHEET

Part No.	AN29000A
Package Code No.	QFP056-9-1010B

SEMICONDUCTOR COMPANY
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

Contents

AN29000A

Silicon Monolithic Bi - CMOS IC

■ Features

- IF - AMP1, IF - AMP2, DET, NOISE-SQ, RSSI, DATA - AMP, BATT - LOW, COMPANDER, SP - AMP, Half-Mute, OSC, PRESCALER, PROGRAMMABLE - COUNTER, Pre - AMP, Vol Control, Power Down, Splatter - Filter

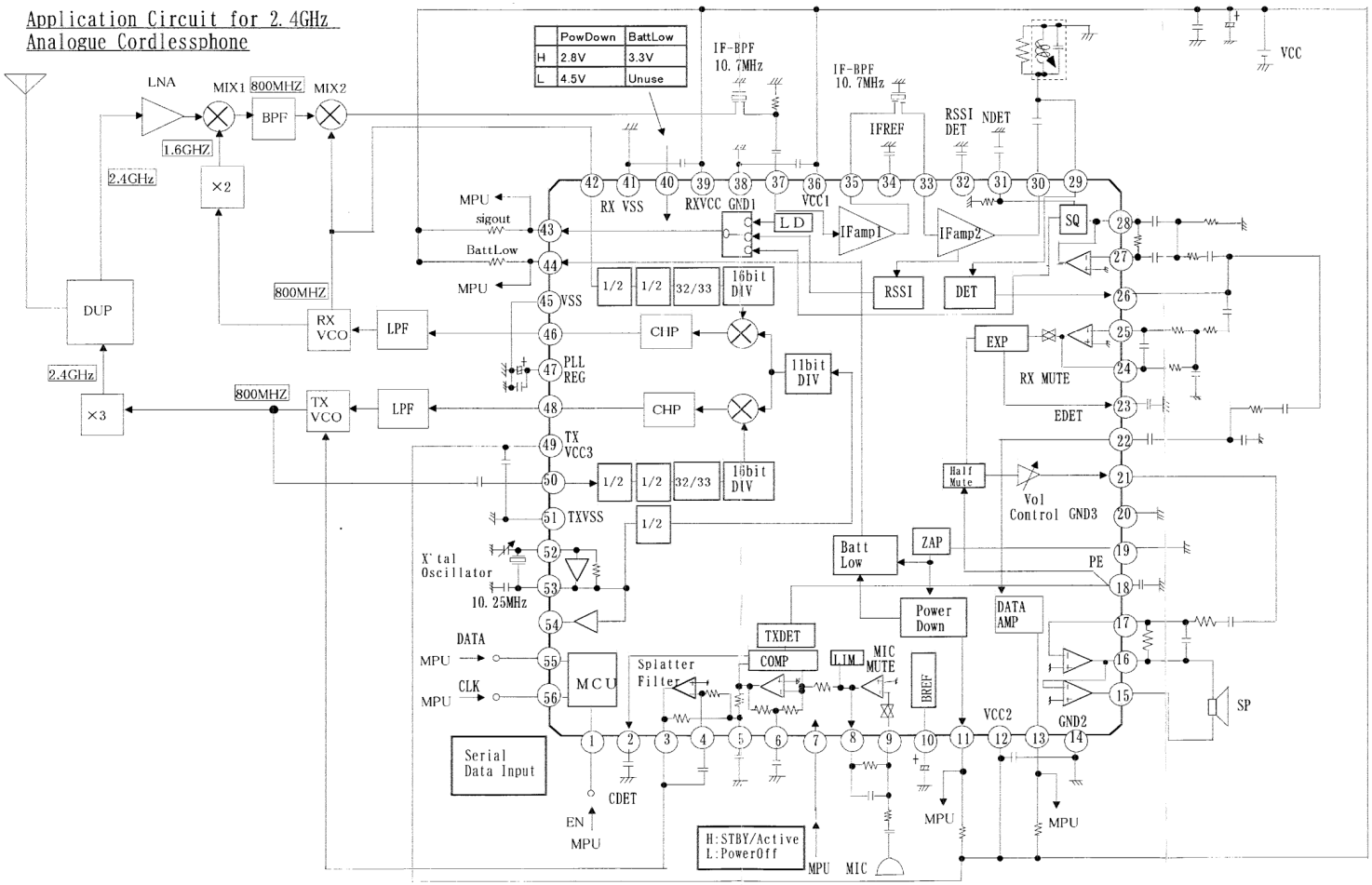
■ Applications

- IC for Cordless Telephone (IF + COMPANDER + PLL)

■ Package

- Quad 56 pin Plastic Package

■ Application Circuit



■ Pin Descriptions

Pin No.	Pin Description		Pin No.	Pin Description	
1	EN	Enable input	29	DET-IN	FM detector input
2	C-DET	COMP detection	30	IF2-OUT	IFamp2 output
3	SF-OUT	Splatter filter output	31	N-DET	Noise detection
4	SFC2	External splatter filter	32	RSSI-DET	RSSI detection
5	SFC1	COMP output	33	IF2-IN	IFamp2input
6	COMP-DC	COMP output V_{REF}	34	IF2-V_{REF}	IFamp2 V_{REF}
7	POFF	Power down input	35	IF1-OUT	IFamp1 output
8	MIC-OUT	Microphone amp output	36	V_{CC1}	V_{CC1}
9	MIC-IN	Microphone amp input	37	IF1-IN	IFamp1 input
10	BREF	Audio system reference output	38	GND1	Ground 1
11	PD-OUT	Power down output	39	RXV_{CC}	RX-counter V_{CC}
12	V_{CC2}	V_{CC2}	40	PDL	BL, PD threshold selection
13	DOUT	Data amp output	41	RXGND	RX-counter Gnd
14	GND2	Ground 2	42	FINR	RX-counter input
15	BTL	SP amp output 1	43	SIG-OUT	LD, RSSI, ND output
16	SP-OUT	SP amp output 2	44	Batt-Low	Battery low output
17	SP-IN	SP amp input	45	V_{SS}	Logic Gnd
18	TXDET	Half-mute detection	46	RX-PD	RX-phase comparator output
19	PE	ZAP write	47	PLLREG	Logic power source output
20	GND3	Ground 3	48	TX-PD	TX-phase comparator output
21	EXPOUT	EXP output	49	TX_{VCC}	TX-counter V_{CC}
22	DIN	Data amp input	50	FINT	TX-counter input
23	EDET	EXP detection	51	TXGND	TX-counter Gnd
24	PreAMP-OUT	Pre-amp output	52	OSCI	Crystal oscillator input
25	PreAMP-IN	Pre-amp input	53	OSCO1	Crystal oscillator output1
26	DET-OUT	FM detection output	54	OSCO2	Crystal oscillator output2
27	NFIN	Noise filter input	55	DATA	Serial data input
28	NFOUT	Noise filter output	56	CLK	Clock input

■ Absolute Maximum Ratings

No.	Parameter	Symbol	Rating	Unit	Note
1	Storage temperature	T_{stg}	–55 to +125	°C	*1
2	Operating ambient temperature	T_{opr}	–20 to +75	°C	*1
3	Operating ambient atmospheric pressure	P_{opr}	$1.013 \times 10^5 \pm 0.61 \times 10^5$	Pa	
4	Operating constant gravity	G_{opr}	9 810	m/S^2	
5	Operating shock	S_{opr}	4 900	m/S^2	
6	Supply voltage	V_{CC1}, V_{CC2}, RxV_{CC}, TxV_{CC}	6.5	V	*2
7	Supply current	I_{CC}	30	mA	*3
8	Power dissipation	P_D	195	mW	

Note) *1 : Ta = 25°C except storage temperature and operating ambient temperature.

*2 : Power supply terminal (V_{CC1} (pin 36) , V_{CC2} (pin 12) , RxV_{CC} (pin 39) , TxV_{CC} (pin 49)) should be supplied with same supply voltage.

*3 : I_{CC} is define as total current consumption at above four power supply terminal.

■ Operating Supply Voltage Range

Operating supply voltage range	V_{CC1}, V_{CC2}, RxV_{CC}, TxV_{CC}	2.7 V to 5.5 V

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