aWL329-K1

Wireless Program IC

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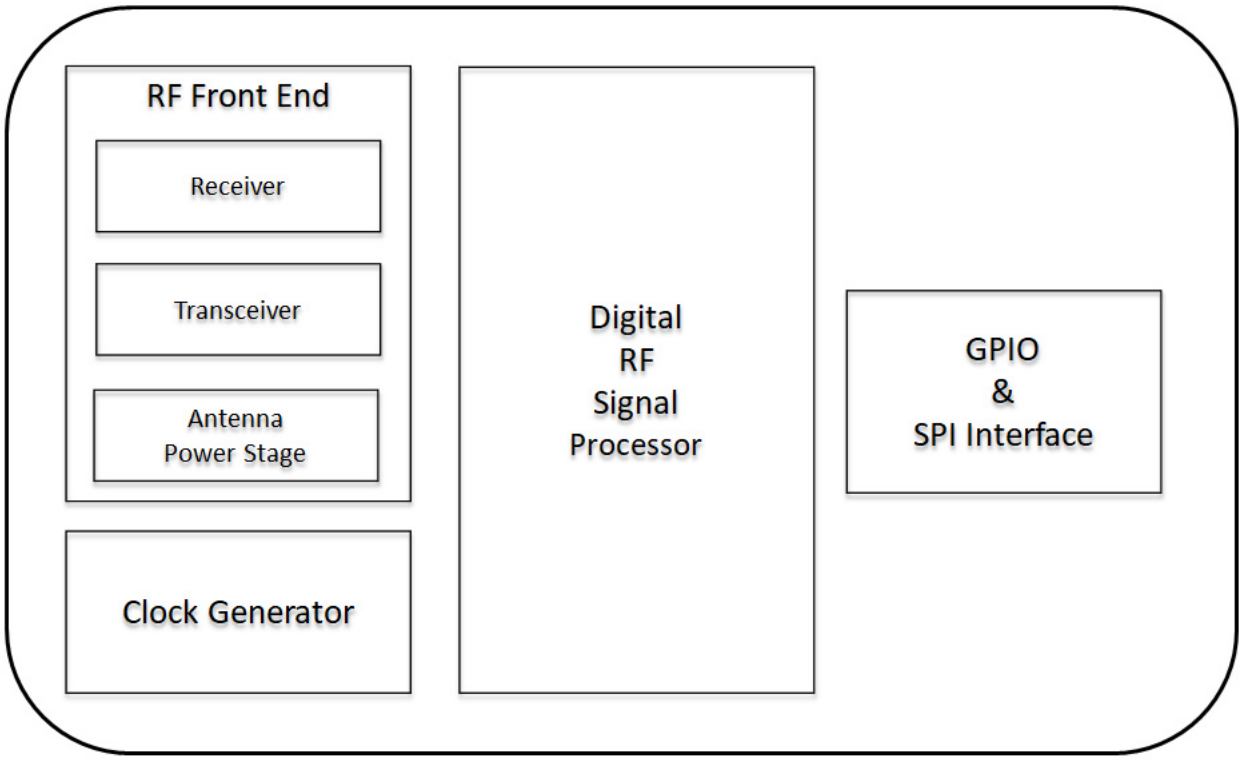
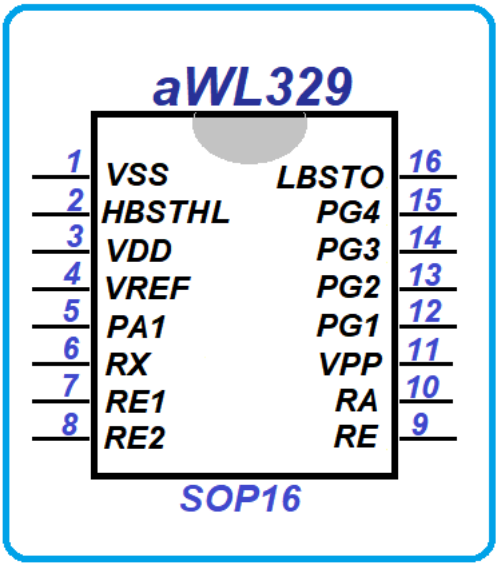
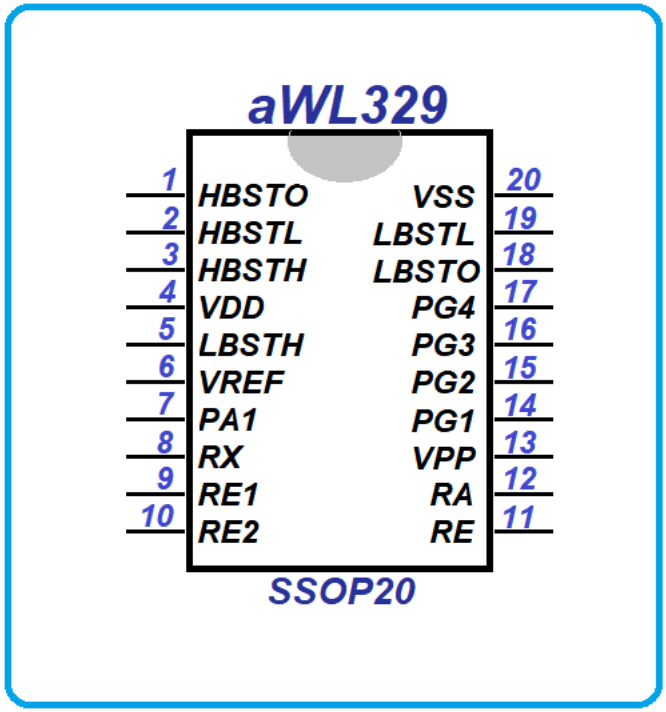
FEATURES

- 13.56Mhz System Clock Frequency
- Bit Rate : 678K bps
- Wide Operating Voltage Range
  - 2.7V to 5V
- RF Field Detector With Wake-up Function
- SPI Interface for Accessing the Memory and Exchanging Data With the Microcontroller
- Integrated Encoders, Decoders, and Data Framing for Wireless Communication
- Programmable Power Modes for Ultra-Low-Power System Design (Power Down < 1μA)
- Programmable Modulation Depth
- Programmable Output Power for Antenna
- Package : SOP16, SSOP20




aWL329
1 VSS
2 HBSTHL
3 VDD
4 VREF
5 PA1
6 RX
7 RE1
8 RE2
16 LBSTO
15 PG4
14 PG3
13 PG2
12 PG1
11 VPP
10 RA
9 RE
SOP16

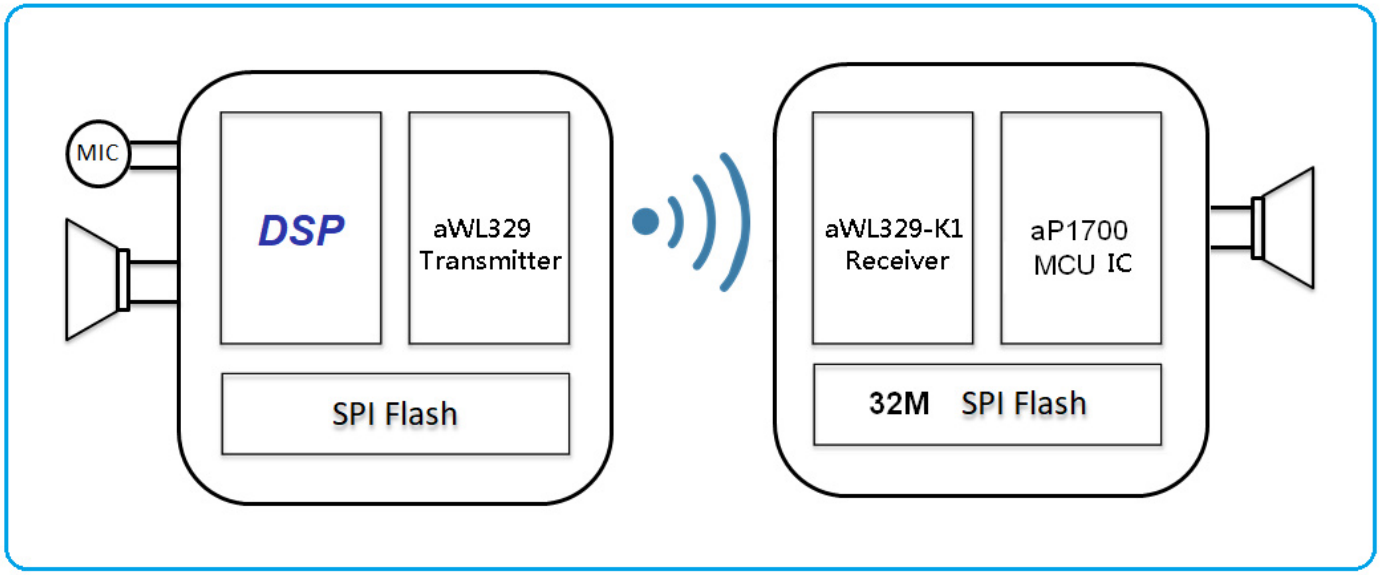

aWL329
1 HBSTO
2 HBSTL
3 HBSTH
4 VDD
5 LBSTH
6 VREF
7 PA1
8 RX
9 RE1
10 RE2
20 VSS
19 LBSTL
18 LBSTO
17 PG4
16 PG3
15 PG2
14 PG1
13 VPP
12 RA
11 RE
SSOP20

■ Pin Description :

Pad Name	*Sop16 Pin no*	*Ssop20 Pin no*	*Description*
VSS	*1*	20	Ground
HBSTHL	*2*		High voltage (8.5v typ) Boost high-low side output. Connect to inductor.
VDD	*3*	4	Power
VREF	*4*	6	Reference voltage output
PA1	*5*	7	Port A1
RX	*6*	8	RF receiver input. Connect to coil.
RE1	*7*	9	RF analog signal path E1.
RE2	*8*	10	RF analog signal path E2.
RE	*9*	11	RF analog signal path E.
RA	*10*	12	RF analog signal path A.
VPP	*11*	13	High voltage input for programing.
PG1	*12*	14	Port GPIO 1.
PG2	*13*	15	Port GPIO 2
PG3	*14*	16	Port GPIO 3
PG4	*15*	17	Port GPIO 4
LBSTO	*16*	18	Low voltage (4.5v typ) Boost output.
HBSTO		*1*	High voltage (8.5v typ) Boost output.
HBSTL		*2*	High voltage (8.5v typ) Boost low side output. Connect to inductor.
HBSTH		*3*	High voltage (8.5v typ) Boost high side output. Connect to inductor.
LBSTH		*5*	Low voltage (4.5v typ) Boost high side output. Connect to inductor.
LBSTL		*19*	Low voltage (4.5v typ) Boost low side output. Connect to inductor.

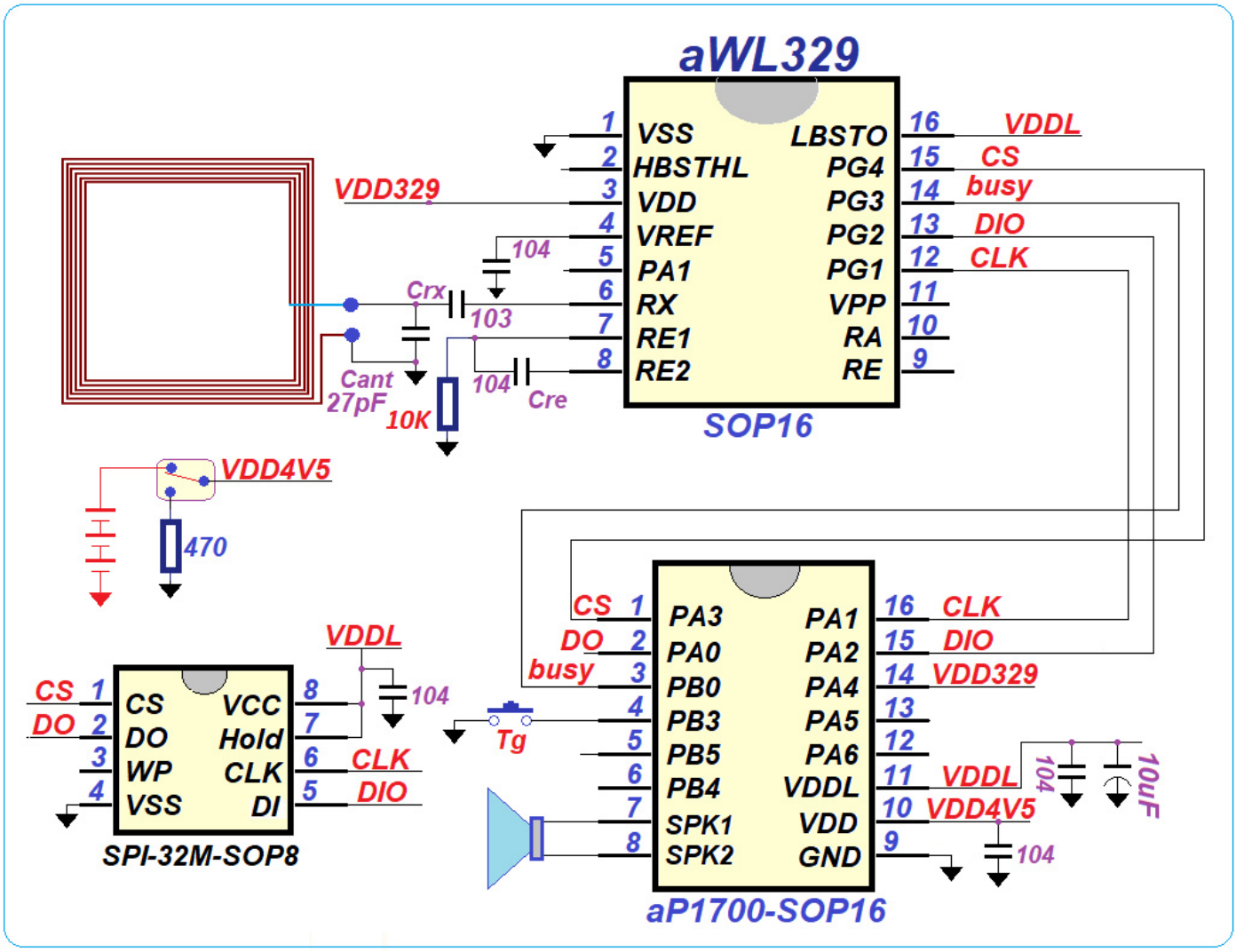
■ APPLICATIONS :

User can wirelessly program 2 minutes voice to 32M Flash by PCM16 x 16k through WLW32M Writer. The sensing distance between Transmitter and Receiver is 1~2 cm Receiver metal should not touch the writer to avoid program failed.



WLW32M Writer Transmitter **Receiver**

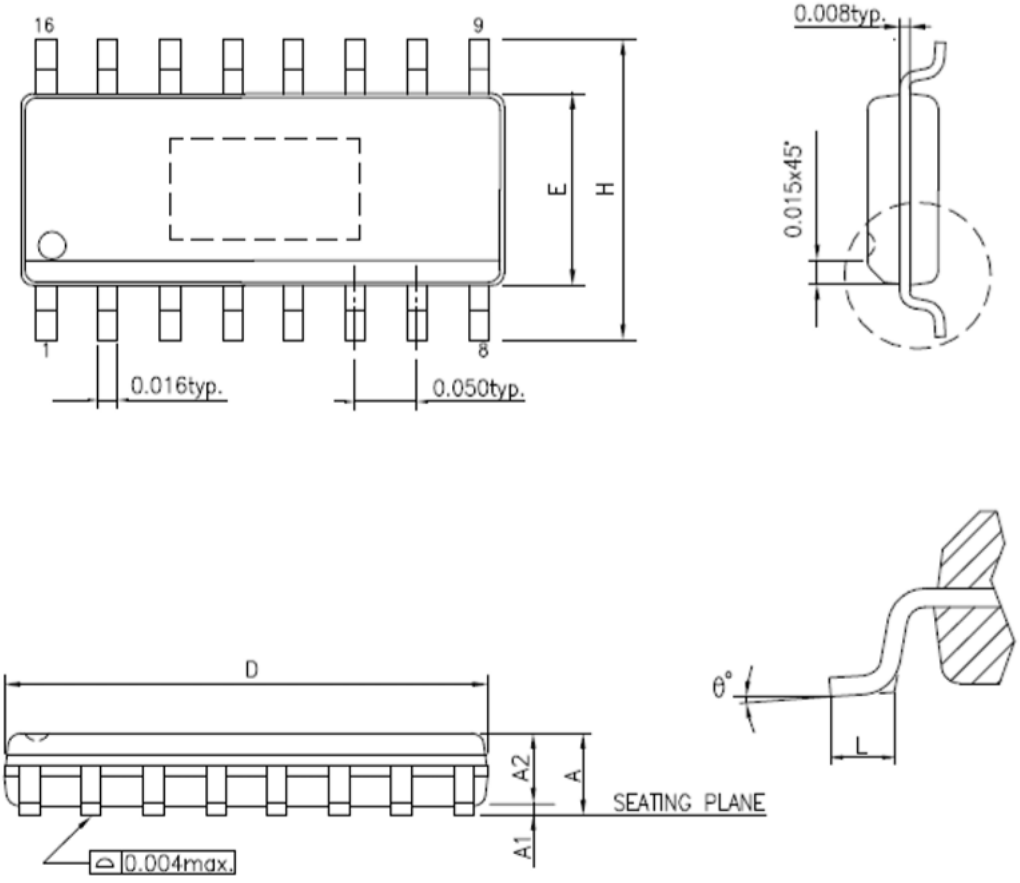
aWL329 + aP1700 + SPI 32M APPLICATIONS CIRCUIT (VCC=4.5V):



Note : Suggest sensing ANTENNA COILS > 8

Cant value is between 0~100pF depends on ANTENNA and PCB layout.

- **SOP16 (150mil)**

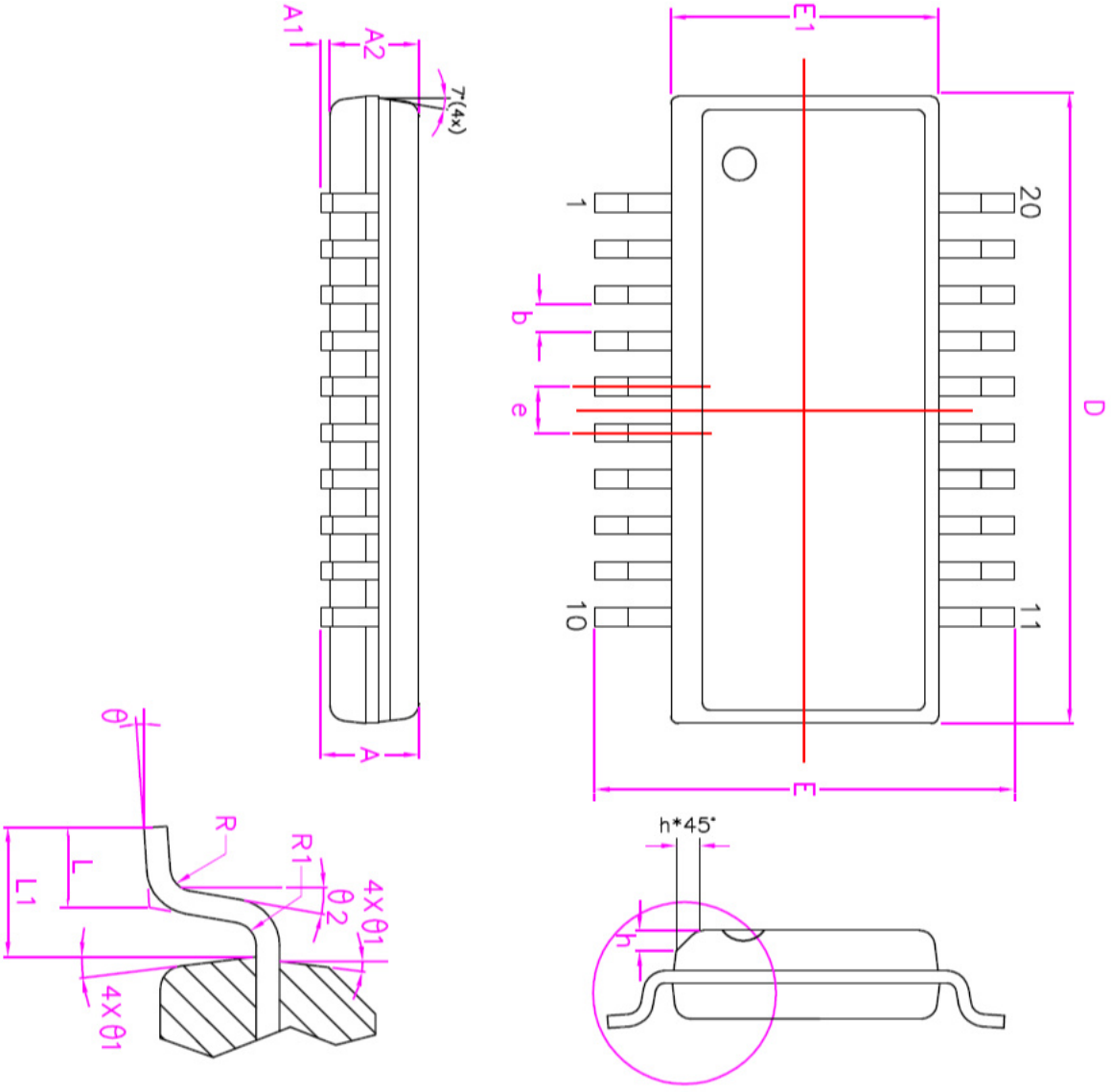


	STANDARD		THERMAL	
SYMBOLS	MIN.	MAX.	MIN.	MAX.
A	0.053	0.069	0.053	0.067
A1	0.004	0.010	0.002	0.006
A2	0.049	0.065	0.049	0.065
D	0.386	0.394	0.386	0.394
E	0.150	0.157	0.150	0.157
H	0.228	0.244	0.228	0.244
L	0.016	0.050	0.016	0.050
θ°	0	8	0	8

UNIT : INCH

NOTES:
1.JEDEC OUTLINE : MS-012 AC REV.E (STANDARD)
MS-012 BC REV.E (THERMAL)
2.DIMENSIONS "D" DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.MOLD FLASH, PROTRUSIONS AND GATE BURRS SHALL NOT EXCEED .15mm (.006in) PER SIDE.
3.DIMENSIONS "E" DOES NOT INCLUDE INTER-LEAD FLASH, OR PROTRUSIONS. INTER-LEAD FLASH AND PROTRUSIONS SHALL NOT EXCEED .25mm (.010in) PER SIDE.

- **SSOP20 (150mil) :**



SYMBOLS	MIN.	NOM.	MAX.
A	0.053	0.061	0.069
A1	0.004	–	0.010
A2	0.049	0.057	0.065
b	0.008	0.010	0.012
D	0.335	0.341	0.347
E	0.228	0.236	0.244
E1	0.150	0.154	0.158
e	–	0.025	–
L	0.016	0.033	0.050
L1	0.041 REF		
R	0.003	–	–
R1	0.003	–	–
h	0.010	0.015	0.020
θ	0°	4°	8°
θ1	5°	10°	15°
θ2	0°	–	–

UNIT : INCH