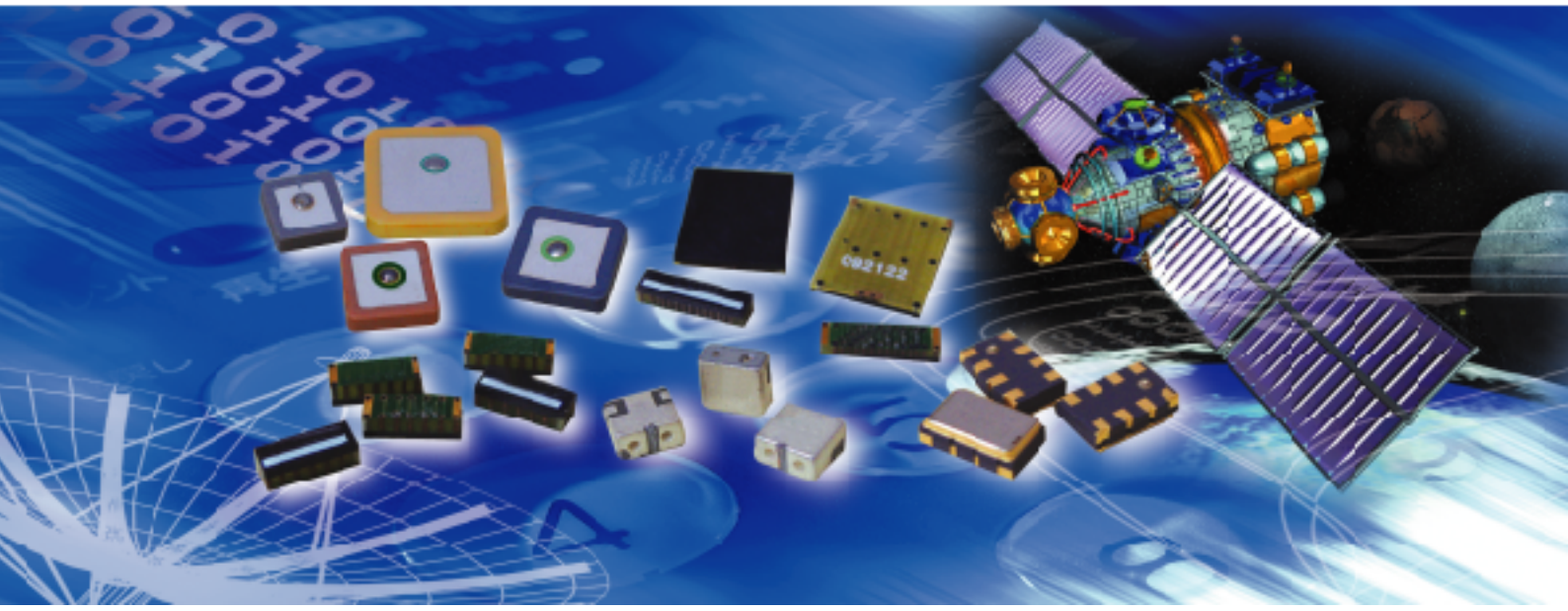
ARGO®
THE FREQUENCY CONTROLLER

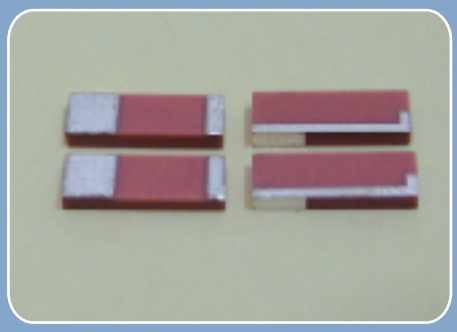
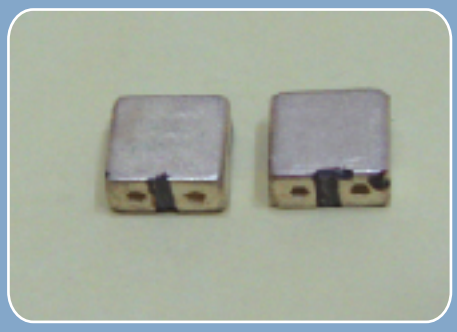
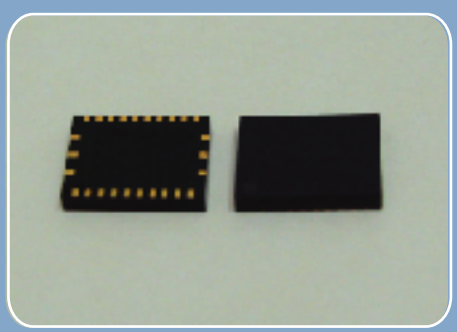
GPS & RF Solution

Antenna & Filter For GPS, Bluetooh, XM, Sirius
TCXO, Crystal, E-Compass, GYRO Sensor

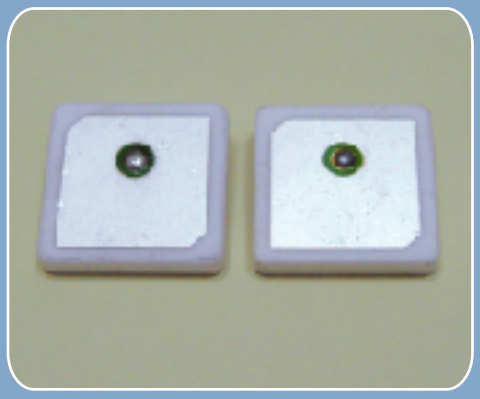
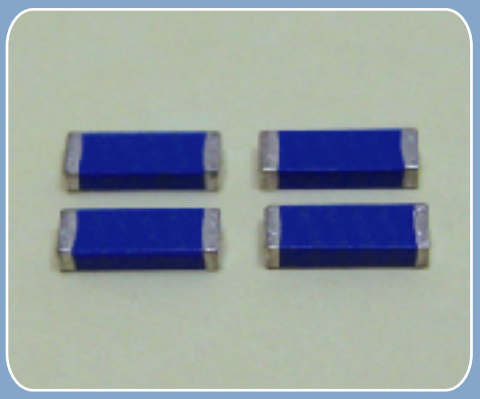


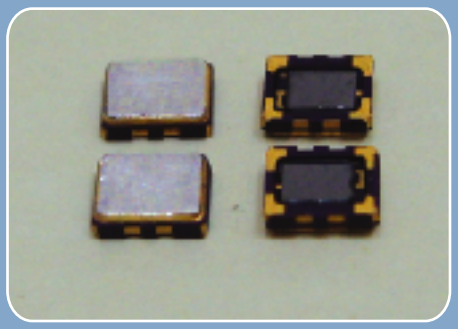
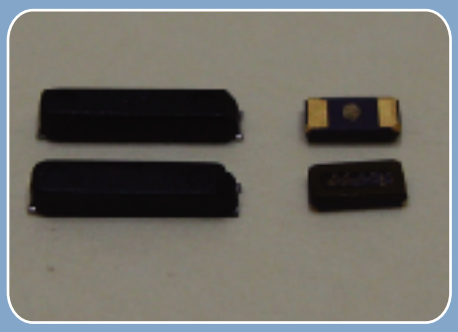
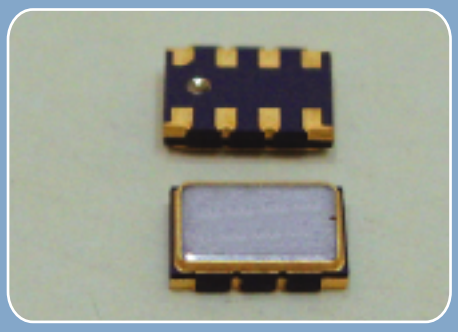
雅士博科技股份有限公司　ARGO TECHNOLOGY CO., LTD.

CONTENT

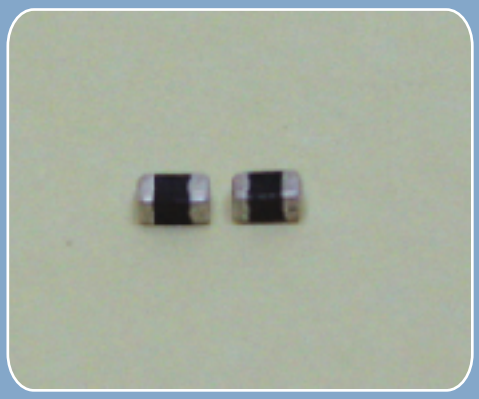
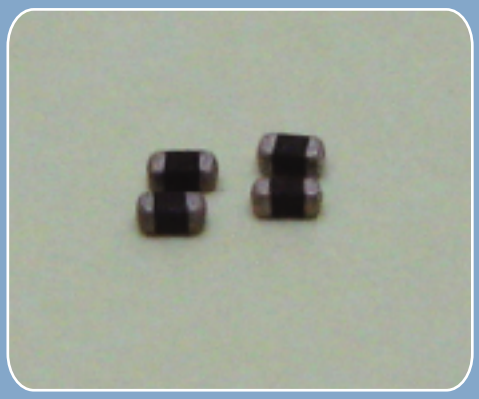
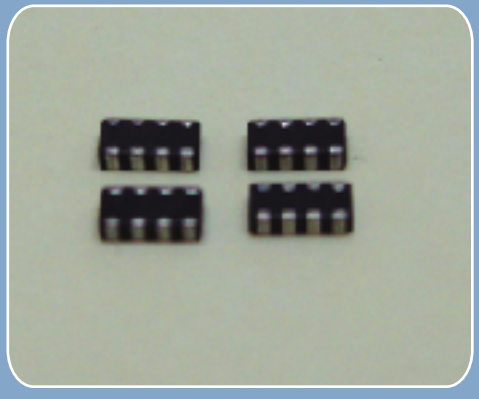
Type	Rating & Characteristics	Feature
PATCH ANTENNA 	For GPS, Freq.: 1575-1595 MHz Complete Optimization Possess Dielectric Substance Precise Printing Technology More Size Low Price High Quality	25x25x4 mm 25x25x2 mm 18x18x4 mm 18x18x2 mm 13x13x4 mm 13x13x2 mm
CHIP ANTENNA 	For GPS/Bluetooth Freq.:1575.42 MHz / 2.4 GHz Wide Bandwidth Favorable Linear Polarization Fully Manual and Surface Mount Compatible Incredibly Compact SMD Package LCP Insert Molding Technology Cost Effective	10x8x1.5 mm (GPS) 8x2x0.9 mm (GPS) 8x5x1.3 mm (Bluetooth) 5.2x3x1.3 mm (Bluetooth) 5.2x3x1.5 mm (Bluetooth) 5.5x2x1.0 mm (Bluetooth)
BAND PASS FILTER 	For GPS, Bluetooth Freq.: 1575.42 MHz / 2.4 GHz Various Specification Line Up Low Insertion Loss High Attenuation Efficiency Low Price Incredibly Compact SMD Package	5.6x5x3 mm
E-COMPASS SENSOR 	For GPS IRAC(Intelligent Real Time Automatic Calibration) Low Power: (less than 10mA in active) (Less than 20 μA in all power down mode) 10 Bit A/D Converter Internal Oscillator	7x9x1.4 mm

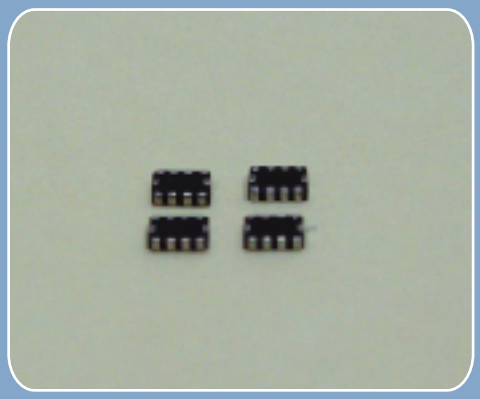
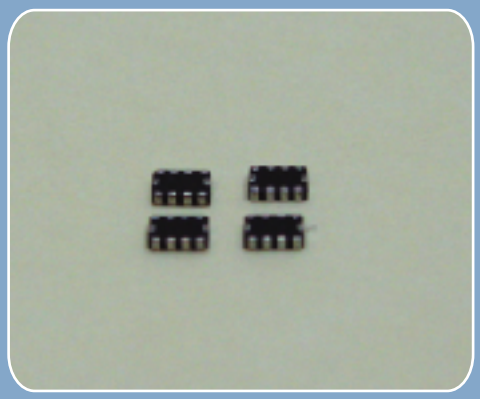
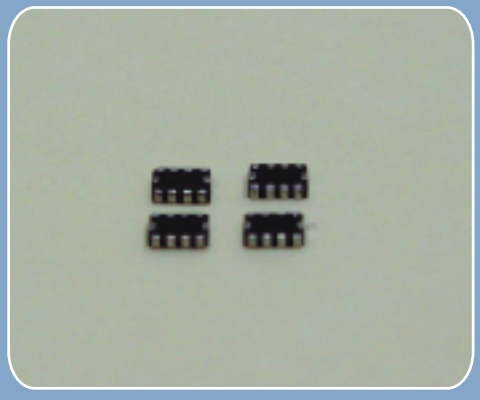
Bluetooch & DVB-T Communication Components

Type	Rating & Characteristics	Feature
PATCH ANTENNA FOR SDARS 	For SDARS XM, Sirius Freq.:2326, 2338 MHz Wide Bandwidth Favorable Linear Polarization Fully Manual and Surface Mount Computible Incredibly Compact SMD Package LCP Insert Molding Technology Cost Effective More Size	25x25x4 mm 25x25x7 mm 18x18x4 mm 18x18x7 mm 37x37x3 mm 32x32x4 mm
CHIP ANTENNA FOR BLUETOOTH 	For Bluetooch Freq.: 2.4 GHz, 5.2 GHz Various Specification Line Up Low Insertion Loss High Attenuation Efficiency Low Price Incredibly Compact SMD Package	5.6x5x3 mm
ANTENNA FOR DVB-T 	For DVB-T Wide Bandwidth Favorable Linear Polarization Thermal Plastic Insert Molding Technology Omni-Directional Antenna Patten Cost-Effective	65x4.7 mm

Type	Rating & Characteristics	Size
TCXO(EPSON TOYOCOM) 	For GPS Frequ.:16.369 MHz / 0.5 PPM Supply Voltage DC 2.65 to 3.05 V (Center 2.85 V) Miniature size High Frequency Stability Lead Free Completely Low Price	3.2x2.5x0.9 mm (TCO-5859)
CRYSTAL(EPSON TOYOCOM) 	For GPS Frequency 32.768 KHz / 20 PPM Small Communications Devices High Quality Low Price	7x1.5x1.4 mm (MC-146) 3.2x1.5x0.8 mm (FC-135)
GYRO SENSOR(EPSON TOYOCOM) 	For GPS Ultra Small Package High Stability High Reliability Wide Input Range And Wide Bandwidth Low Price	5x3.2x1.3 mm (XV-8100)
SAW FILTER(EPSON TOYOCOM) 	For GPS Low Insertion Loss Type High Attenuation Type and Balanced FCB Technology Achieves Miniature Size And Low Profile Lead Free Completely	2.5x2.0x0.8 mm (TQS-949AD)

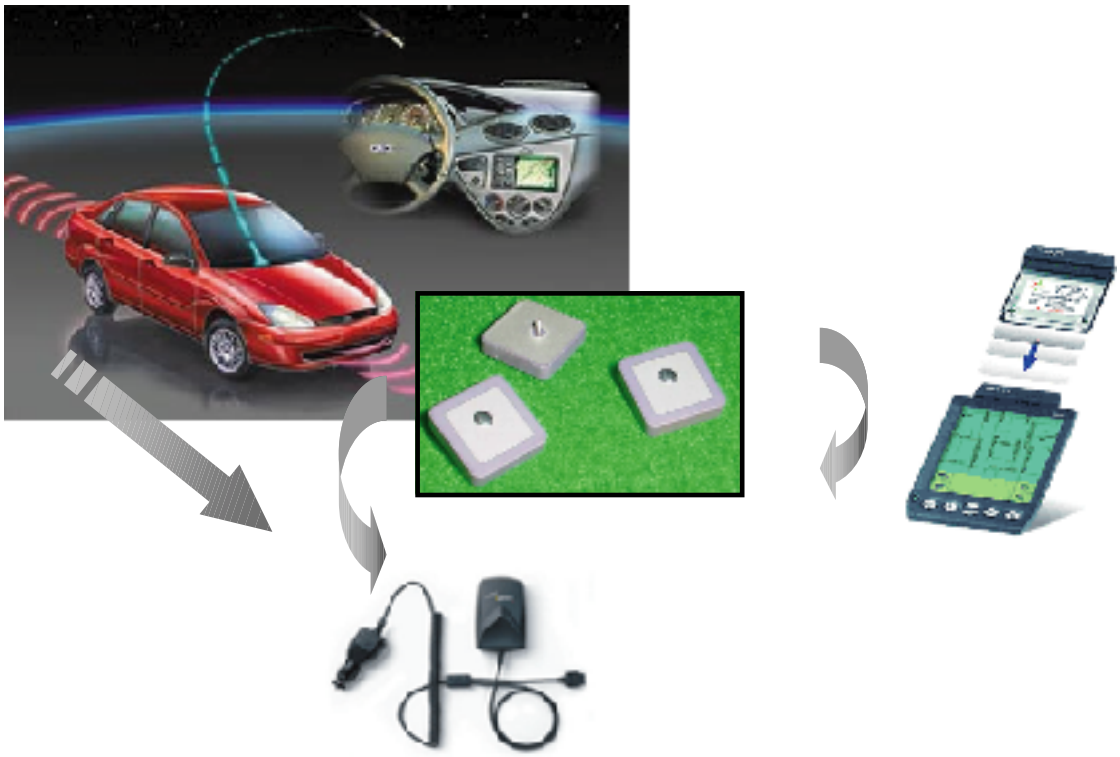
EMC Protection - ESD Varistor

Type	Rating & Characteristics	Size
AVL Series (High Power) 	For ESD Working Voltage: 3 V to 56 V Fast Response time (＜1ns) ESD Protection (＞30KV) Small Size Multilayer Construction Technology Bidirectional Clamping and Low Clamping Voltage No Plastic Coating Guarantees Better Flammability Rating Low Leakage Current After Soldering Max 20μA at VDC	1.0x0.5 mm (0402) 1.6x0.8 mm (0603) 2.0x1.25 mm
AVLC Series (Low Capacjtance) 	For ESD Working Voltage: 5V to 18V Fast Response Time (＜1ns) ESD Protection (＞30KV) Small Size Meets IEC 61000-4-2(ESD) Level 4, & IEC 61000-4-4(EFT) Level 4 Requirements Low Capacitance For High Frequency Data Line Protection Available in Tape And Reel For Automatic Pick And Place	0.6x0.3 mm (0201) 1.0x0.5 mm (04020) 1.6x0.8 mm (0603)
AVNC Series (Array Type) 	For ESD Four Element in One Chip Meets IEC 61000-4-2(ESD) Level, 4 requirements MLS Level # 1 ESD Protection (＞30KV) Fast Response Time (＜1ns)	2.0x1.2 mm (0805)

Type	Rating & Characteristics	Size
AVSC Series (Array Type) 	For ESD Four Element In One Chip Meets IEC 61000-4-2 (ESD) Level 4 Requirements MLS Level #1 ESD Protection (>30KV) Fast Response Time (<1ns)	2.0x1.2 mm (0805) 1.4x0.9 mm (0504)
AVFC Series (Feed-thru) 	For ESD/EMI Filter Feed Thru Type Four Channel Array Filter Meets IEC 61000-4-2(ESD) Level Requirements MLS Level #1 ESD Protection (>30KV) Fast Response Time (<1ns)	2.0x1.2 mm (0805) 1.4x0.9 mm (0504)
AVRC Series (R-C) 	For ESD/EMI Filter RC Type Four Channel Array Filter Meets IEC 61000-4-2(ESD) Level 4 Requirements MLS level #1 ESD Protection (>30KV) Fast Response Time (<1ns)	2.0x1.2 mm (0805) 1.6x0.8 mm (0603) 1.4x0.9 mm (0504)

GPS Antenna Specification

	Pin Type				SMD Type
Part No	YDRA-A25	YDRA-A18	YDRA-A15	YDRA-A12	YDRA-SMD
fo(MHz)	1575.42	1575.42	1575.42	1575.42	1575.42
Bandwidth(MHz)	15 Min	7 Min	5 Min	4 Min	15 Min
VSWR	1.50	1.50	1.50	1.50	1.50
Polarization	RHCP	RHCP	RHCP	RHCP	RHCP
Gain(dBi)	5.00	3.00	3.00	3.00	3.00
Axial Ratio(dB)	2.00	2.0 Max	3.0 Max	3.0 Max	2.00



Bluetooth Chip Antenna Specification

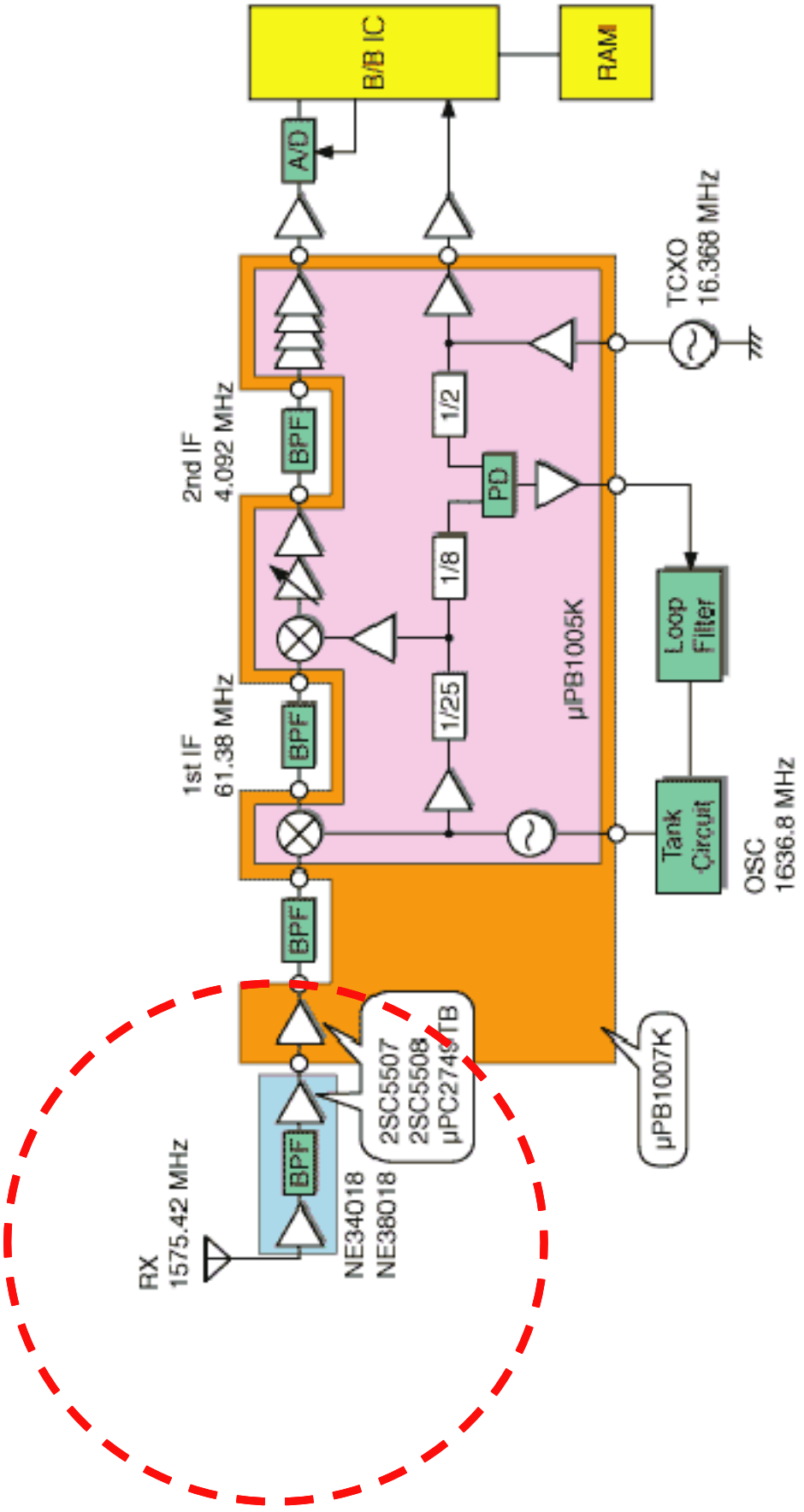
	Bluetooth Chip Antenna		
Size	8x8x3	6x4x3	6x4x2
fo (MHz)	2450	2450	2450
Bandwidth (MHz)	120 Min.	120 Min.	120 Min.
VSWR	2.0	2.0	2.0
Polarization	Linear	Linear	Linear
Gain (dBi)	2 dBi	1 dBi	0 dBi
Pattern	Omni Directional		

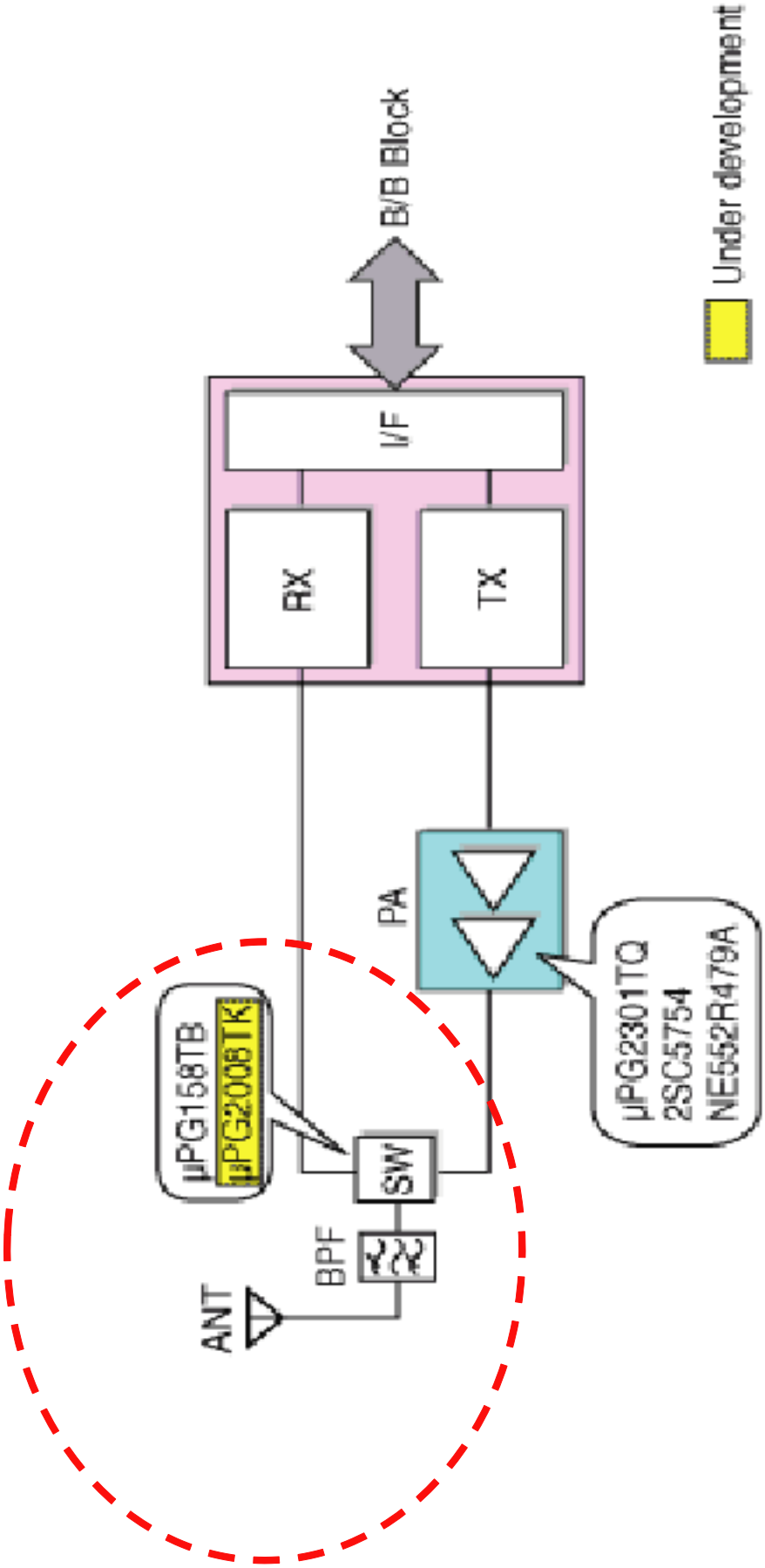
Filter

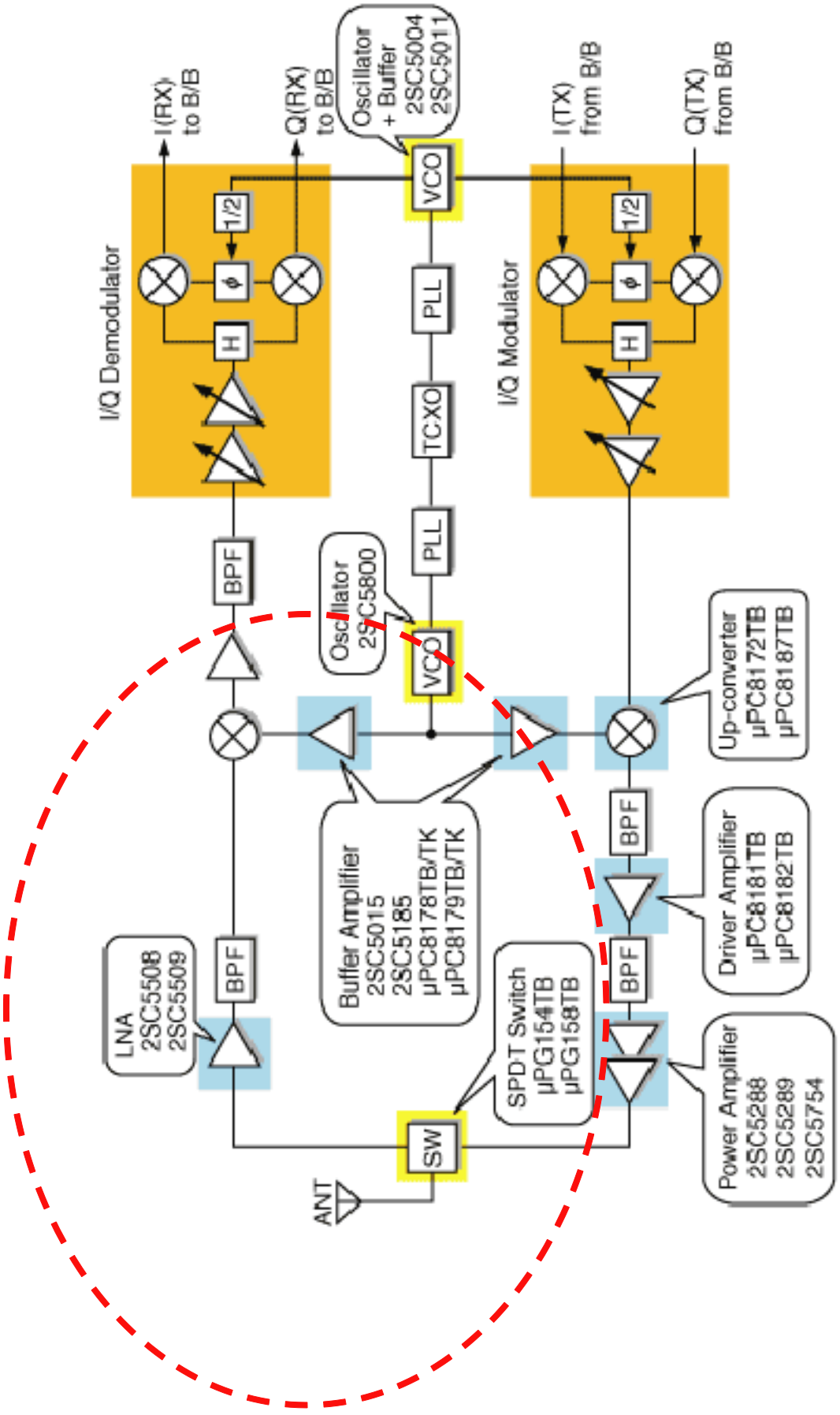
No.	ITEM.	AMOBP2326P02-A	AMOBP2332P02-A	AMOBP2338P02-A
1	Center Frequency (fo)	2326.5 MHz	2332.5 MHz	2338.75 MHz
2	Band width (B/W)	Fo ± 6.25	Fo ± 6.25	Fo ± 6.25
3	Insertion Loss at BW (I/L)	3.0 dB	3.0 dB	3.0 dB
4	Ripple at BW	0.5dB Max	0.5dB Max	0.5dB Max
5	VSWR at BW	1.5 Max	1.5 Max	1.5 Max
6	Attenuation	Fo -100 MHz	Fo -24 MHz	Fo -24 MHz
		Fo +100 MHz	Fo +24 MHz	Fo +24 MHz
7	Input Power	1W	1W	1W
8	Nominal Characteristic Impedance	50 Ω	50 Ω	50 Ω
9	Operation Temperature Range	-30 ~ +85 °C	-30 ~ +85 °C	-30 ~ +85 °C

Antenna

ITEM.	Specification
Size	25x25x4 mm
Center Frequency	2326.25±4.0 MHz
Return Loss	10dB Min
VSWR	2.0 Max
Impedance	50 Ω
Polarization	LHCP
Axial Ratio	3.0dB Max
Gain	5dBi Type


B/B IC
RAM
A/D
TCXO
16.368 MHz
2nd IF
4.092 MHz
BPF
1/2
PD
1/8
1/25
µPB1005K
Loop Filter
1st IF
61.38 MHz
BPF
BPF
Tank Circuit
OSC
1636.8 MHz
2SC5507
2SC5508
µPC2745TB
µPB1007K
RX
1575.42 MHz
BPF
NE34018
NE38018


Under development
B/B Block
I/F
RX
TX
PA
μPG2301TQ
2SC5754
NE552R479A
μPG158TB
μPG2008TK
SW
BPF
ANT


I(RX) to B/B
Q(RX) to B/B
Oscillator + Buffer 2SC5004 2SC5011
I(TX) from B/B
Q(TX) from B/B
I/Q Demodulator
1/2
VCO
PLL
TCXO
PLL
I/Q Modulator
1/2
H
H
BPF
Oscillator 2SC5800
VCO
Up-converter µPC8172TB µPC8187TB
BPF
Buffer Amplifier 2SC5015 2SC5185 µPC8178TB/TK µPC8179TB/TK
Driver Amplifier µPC8181TB µPC8182TB
BPF
LNA 2SC5508 2SC5509
BPF
SPDT Switch µPG154TB µPG158TB
Power Amplifier 2SC5288 2SC5289 2SC5754
SW
ANT

雅士博科技股份有限公司
ARGO TECHNOLOGY CO., LTD.
台北縣汐止市新台五路一段81號5樓
5F., No.81, Sec.1, Sintai 5th Rd., Sijhih City,
Taipei County 221, Taiwan (R.O.C.)
Tel:(886) 2 2698-0598 Fax:(886) 2 2698-0597
URL: http://www.argotech.com.tw
E-Mail: argosales@argotech.com.tw

SHENZHEN 深圳
ATC Electronic Co., Ltd.
4F, Lu Hua Building, Guang Xia Rd.,
Shang Mei Lin, Futian, Shenzhen, China
Tel:(86) 755 8302-4151, 8319-0333
Fax:(86) 755 8302-4150
URL: http://www.szatc.com.cn
E-mail:howard@argotech.com.tw,
howard@szatc.com.cn

SHANGHAI 上海
ARGOTECH Electronics Co., Ltd.
Room F, 1F, No. 585, Lingling Road,
Ai-bang Building, Shanghai, China
Tel:(86) 21 6486-0464, 6481-4603
Fax:(86) 21 6439-4427
URL: http://www.argocn.com.cn
E-mail:eddy@argotech.com.tw