DAPU

Sync with you!

CONTENTS

DAPU

Part 1

Company Profile

Overview

- Founded in **2005**, DAPU TELECOM, with its headquarter in SSL hi-tech industrial park **Dongguan** China.
- Dapu provides **Frequency, Clock, Timing and RF products** for global customers.
- **Focus on telecom industry,** started in 3G, growing in 4G and **leading in 5G**. DAPU has become a strategic partner with the world's **Tier 1 customers.**
- Provides high-quality products and excellent services to **1700+ customers in 20+ countries** around the world.
- **Customized solution and cutting edge technology**, create technical innovation and cost effective value for customers.

500+ staff

>15%
R&D Investment

>25%
R&D staff

6
Subsidiaries

DAPU

Mission, Vision & Value

Mission

Focus on providing core products and solutions for the ICT & AIoT field, creating value for customers

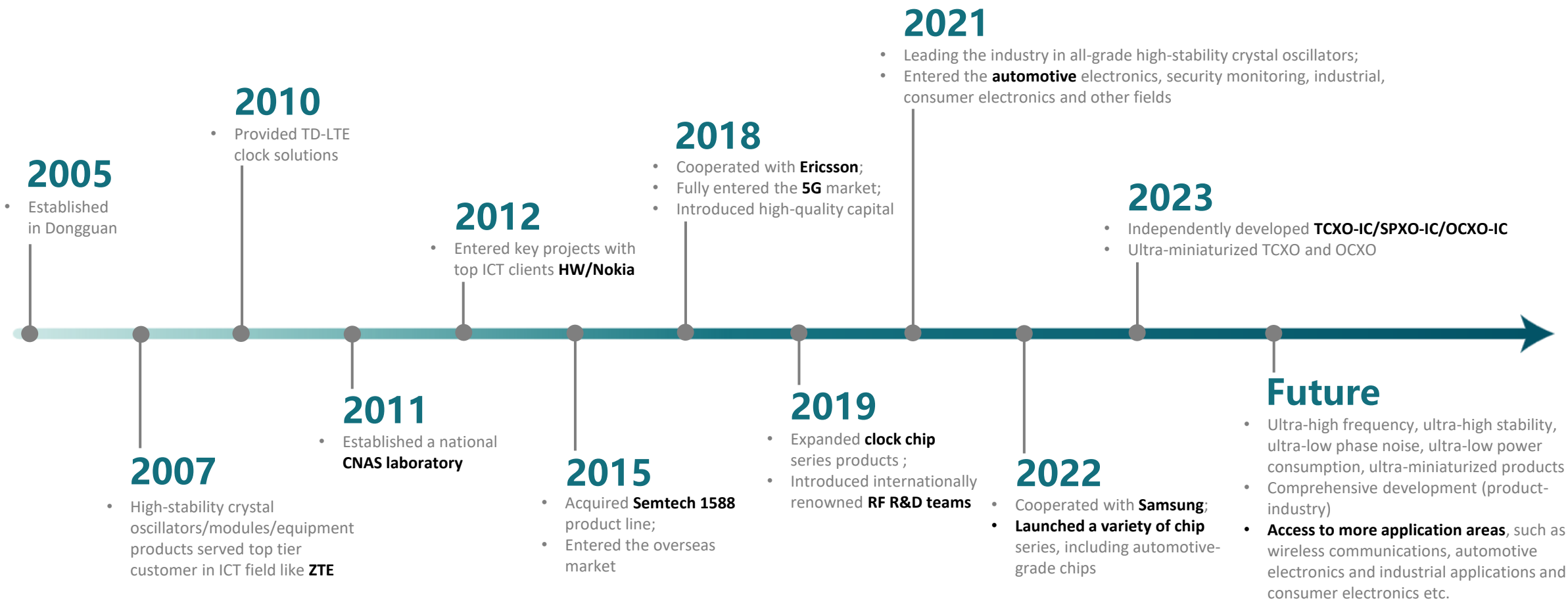
Vision

Become a global technology leader in the field of clocks and RF, and explore the future together with strategic partners

Value

Integrity, Quality, Learning and Creation

Milestone


2005
Established in Dongguan
2007
High-stability crystal oscillators/modules/equipment products served top tier customer in ICT field like ZTE
2010
Provided TD-LTE clock solutions
2011
Established a national CNAS laboratory
2012
Entered key projects with top ICT clients HW/Nokia
2015
Acquired Semtech 1588 product line;
Entered the overseas market
2018
Cooperated with Ericsson;
Fully entered the 5G market;
Introduced high-quality capital
2019
Expanded clock chip series products ;
Introduced internationally renowned RF R&D teams
2021
Leading the industry in all-grade high-stability crystal oscillators;
Entered the automotive electronics, security monitoring, industrial, consumer electronics and other fields
2022
Cooperated with Samsung;
Launched a variety of chip series, including automotive-grade chips
2023
Independently developed TCXO-IC/SPXO-IC/OCXO-IC
Ultra-miniaturized TCXO and OCXO
Future
Ultra-high frequency, ultra-high stability, ultra-low phase noise, ultra-low power consumption, ultra-miniaturized products
Comprehensive development (product-industry)
Access to more application areas, such as wireless communications, automotive electronics and industrial applications and consumer electronics etc.

Subsidiaries

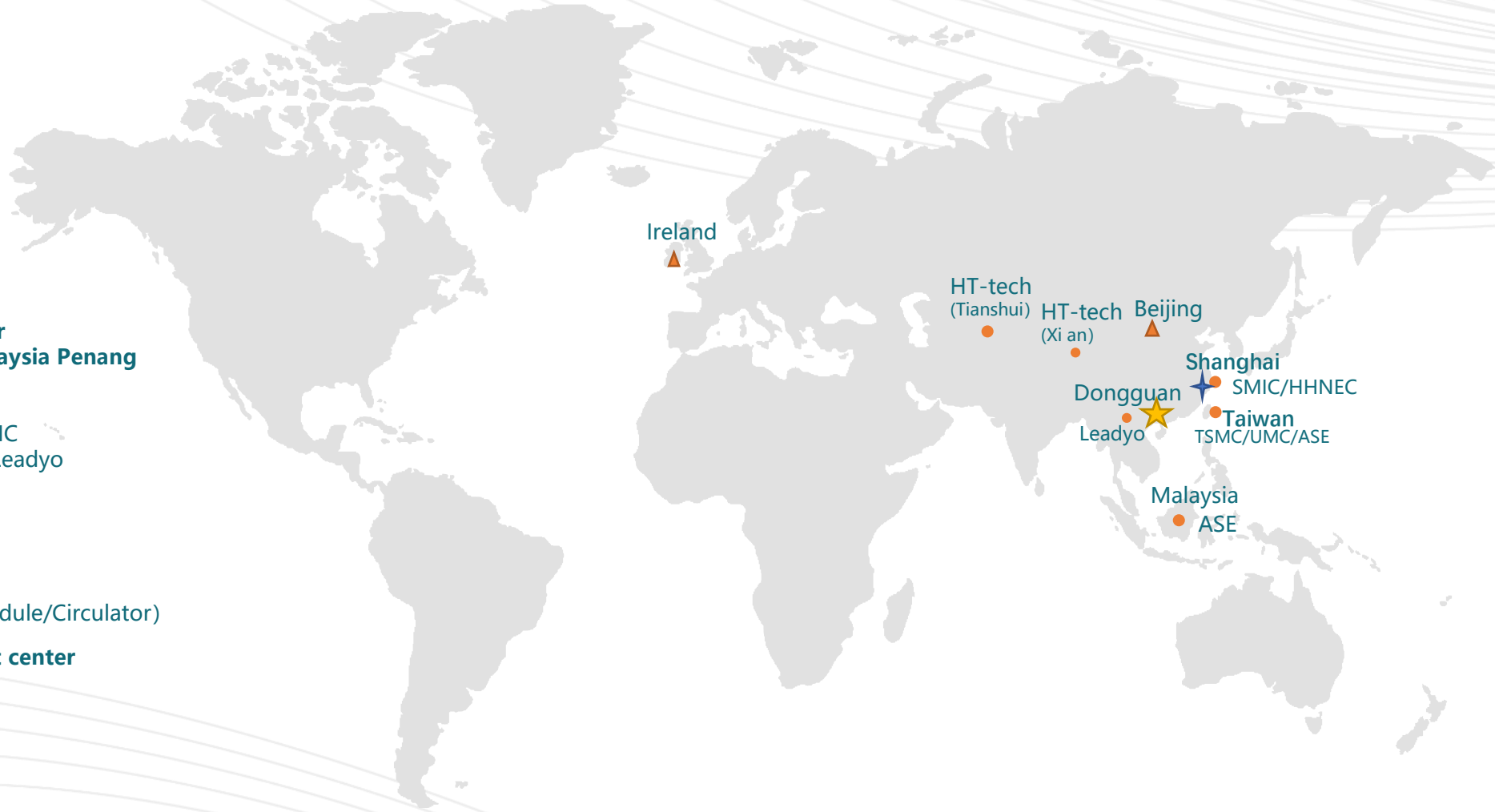
Head Quarter

3 Manufacturing center
Overseas factory – Malaysia Penang

Chip factory
- Fab : TSMC/UMC/SMIC
- A/T: ASE / HT-tech/Leadyo

4 R&D Center
- Shanghai (IC)
- Shenzhen(IC)
- Suzhou (Ferrite)
- Dongguan (Clock module/Circulator)

8 Sales & tech. support center
- Ireland Beijing
- Shanghai Shenzhen
- Hangzhou Wuhan
- Dongguan Suzhou



Qualification Certification & Patents

200+
Patents

83 Invention patents

4 American invention patents

85 Utility model patents

17 Software copyright

Others ...

Member of International Standard Organizations

Qualification Certification

Quality management system certification:

- ISO9001
- IATF16949

Hazardous substances, environmental, occupational health and safety management system certification:

- ISO14001
- ISO45001
- QC080000

Laboratory management system certification:

- ISO/IEC 17025

CNAS Laboratory

- Including mechanical lab, environmental lab, physical and chemical lab and electrical property lab
- More than 30 experiment abilities on crystal oscillator, clock module, etc.
- ✓ CNAS was officially approved in Dec. 2011
- ✓ Rated as the key lab of Dongguan in 2013
- Preparing for China National lab accreditation

Company Strategy

Market, Branding globalization
Guarantee continuous performance growth
Connect with the world and gain insight into industry dynamics and development

Key Customers
Resource concentration
Deeply penetrated in the main fields and cooperation with strategic customer

Develop strong related technologies and products
High comprehensive cost performance
Provide one-stop service
Maximize synergies

Market Strategy

Clock, Timing and RF, provide full solution to all market application

High Stability Clocks

Full Chain Clock Chips

RF components

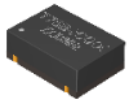
Part 2

Product Line & Market

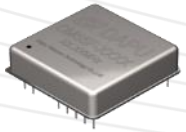
Product Line

Clock Module


Crystal


SPXO/TCXO


OCXO


Clock Module


Clock Board


Timing Server

Clock Chip

TC-IC

OC-IC


RTC

Silicon XO

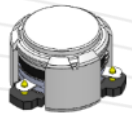

1588 clock chip

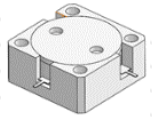
Buffer

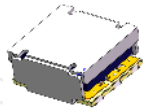

PHY

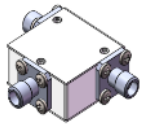

PLL

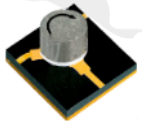
RF Component

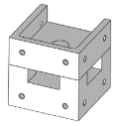

Circulator


Isolator


Low Power Isolator


Coaxial

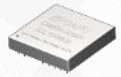
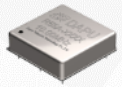
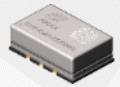
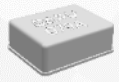
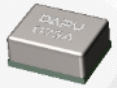

Microstrip


Waveguide Circulator


Ferrite

Application Scenarios

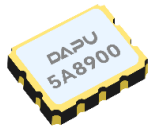
Technical Advantage – Full Clock Series

Clock Level Standard GR-1244-CORE	Level 1 Stability:1E-11	Level 2 Stability: 1.6E-8		Level 3/3E Stability: 4.6ppm				Level 4/4E Stability: 32ppm	
Timing Server	 **DP3/5/6 Series** Freq. accuracy:1E-12/24H Timing accuracy: 1.0μs/24H								
Clock Module	 **51*51*13 DIP** Acc.:30ns，1E-11 Hold:1.0us/24H	 **35*35*15 DIP** Acc.:50ns，1E-10 Hold: 1.5us/24H	 **20*20*8.6 DIP** Acc.:50ns，1E-10 Hold: 1.5us/24H						
OCXO (DP IC)	 **50*50 DIP** 1E-11	 **25*22 SMD** 2E-10	 **9*14 SMD** 5E-10	 **9*7 SMD** 3E-9	 **7*5 SMD** 1E-8				
TCXO (DP IC)					 **7050/5032** 0.05ppm	 **3225** 0.28ppm	 **2016** 0.28ppm	 **1612** 0.28ppm	
OSC (DP IC) CRYSTAL								 **SPXO** 20ppm	 **Crystal** 20ppm
All-Silicon SPXO								 **DSO3001** 30ppm, Single-end/Diff, PCI-E	 **DSO311** 30ppm, Single-end, PCI-E

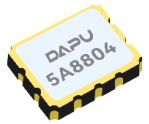
Full series of products, self-developed ASIC, wide temperature and high precision, ultra-miniaturization, ultra-low power consumption, high reliability

RTC

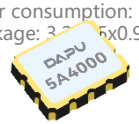
High-accuracy RTC Automotive



INS5A8900(Auto grade)
Acc.: ±5ppm @ -40℃ ~ +90℃
Ext. ±20ppm @ 90℃ ~ +105℃
Power consumption: 1.5uA
Package: 3.2x2.5x0.9mm



INS5A8804(Auto grade)
Acc.: ±5ppm @ -40℃ ~ +90℃
Ext. ±20ppm @ 90℃ ~ +105℃
Power consumption: 1.5uA
Package: 3.2x2.5x0.9mm



INS5A4000(Auto grade SPI)
Acc.: ±5ppm @ -40℃ ~ +85℃
Ext. ±8ppm @ 85℃ ~ +105℃
Operational: +105℃ ~ +125℃
Power consumption: 0.5uA
Package: 3.2x2.5x0.9mm

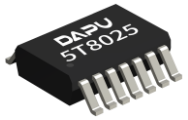
INS5A8000(Auto grade)
Acc.: ±5ppm @ -40℃ ~ +85℃
Ext. ±8ppm @ 85℃ ~ +105℃
Operational: +105℃ ~ +125℃
Power consumption: 0.5uA
Package: 3.2x2.5x0.9mm

Ultra-high accuracy

INS5902A
Acc.: ±2ppm @ -40℃ ~ +85℃
Ext.: -50℃ ~ +85℃
Power consumption: 1.0uA
Package: 3.2x2.5x1.0mm

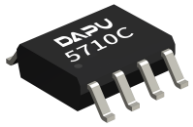
INS5T8900
Acc.: ±3.4ppm @ -40℃ ~ +85℃
Acc.: ±5.0ppm @ -40℃ ~ +85℃
Power consumption: 1.0uA
Package: 3.2x2.5x1.0mm

INS5699C/S
Acc.: ±3.4ppm @ -40℃ ~ +85℃
Acc.: ±5.0ppm @ -40℃ ~ +85℃
Power consumption: 1.0uA
Package: 3.2x2.5x1.0mm

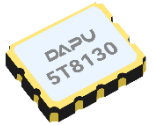


INS5T8025
Acc.: ±3.4ppm @ -40℃ ~ +85℃
Power consumption: 1.0uA
Package: SOP14

High accuracy



INS5710C
Acc.: ±20ppm @ -20℃ ~ +70℃
Ext.: -40℃ ~ +85℃
Power consumption: 1.0uA
Package: SOP8



INS5T8130
Acc.: ±5ppm(25℃)
Temp.: -40℃ ~ +85℃
Power consumption: 0.7uA
Package: 3.2x2.5x0.9

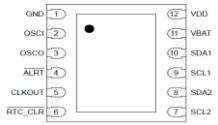
INS5T8111
Acc.: ±5ppm (25℃)
Temp.: -40℃ ~ +85℃
Power consumption: 200nA
Package: 3.2x2.5x0.9

INS5T4111 (SPI)
Acc.: ±5ppm (25℃)
Temp.: -40℃ ~ +85℃
Power consumption: 200nA
Package: 3.2x2.5x0.9

No build-in 32K

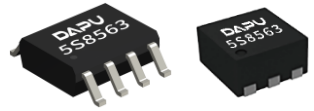
INS5T8563
Acc.: ±20ppm (25℃)
Temp.: -40℃ ~ +85℃
Power consumption: 0.7uA
Package: SOP8/TSSOP8

INS5B8563
Acc.: ±20ppm (25℃)
Temp.: -40℃ ~ +85℃
Power consumption: 0.7uA
Package: SOP8/TSSOP8



INS5T850XX (Dual I2C)
Acc.: ±20ppm (25℃)
Temp.: -40℃ ~ +85℃
Power consumption: 0.7uA
Package: HVSON12, 3x3x0.85

Anti-shock RTC with wide temperature

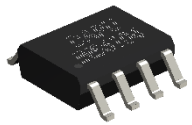


INS5S8563
Acc.: ±100ppm @ -55℃ ~ +125℃
Power consumption: 1.0uA
Package: SOP8
Package: DFN6L(2.0*2.0*0.75mm)
Package: FCDFN6(1.2*1.2*0.55mm)

Multi-variety clock chip and interface chip series

BUFFER

INS6110
Type: Single-end
Output: 10



INS6104
Type: Single-end
Output: 4

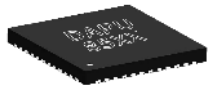
INS6310
Type: Diff.
Output: 10

INS65xx
Developing

PLL

INS8320
Phase noise:100fs RMS
2 PLL

INS86xx
Developing



INS85xx
Developing

IEEE1588

ACS9520
Dual master，
Dual slave，RAM

ACS9521
Dual master，
Dual slave，RAM

ACS9522
Dual master，
Dual slave，
RAM, SETS

ACS9528
Dual master, RAM

PHY

DAP8201M
MII/RMII

DAP8211R
RGMII

DAP8211S
Developing
2.5G

DAP8221x
Developing
5G

SO

DSO3001
Acc.: ±50ppm @ -40 ~ +85℃
Jitter: 350fs

DSO311
Acc.: ±50ppm @ -40 ~ +85℃
Jitter: 350fs

SPXO-IC

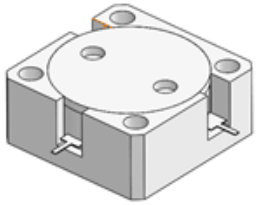
TCXO-IC

OCXO-IC

DAPU

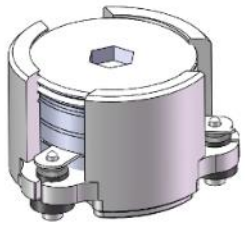
Focus on clock chain chips; continuous technology iteration and product derivation; from Pin-to-Pin replacement to customized solutions

Product Advantage – Circulator/Isolator



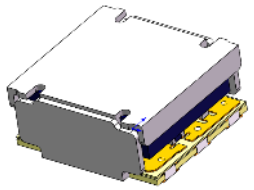
Drop In (high power) Circulator & Isolator

12.7*12.7mm 、19*19mm、19x25.4mm 、25.4*25.4mm、25.4x31.8mm、
31.8*31.8mm、31.8*38.8mm 、 38*38mm
35x42mm 、82x82mm etc.



SMD (high power) Circulator & Isolator

3.8mm*3.8mm、 Ø5mm、Ø7mm、 Ø10mm、 Ø12.5mm、
Ø15mm、 Ø25mm、9mm*9mm etc.



SMD (low power) Circulator & Isolator

5mm*5mm

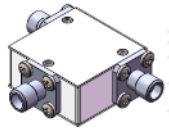
3 Product Series

45 Package Size

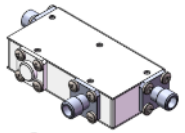
2500+ PNs

(Increasing)

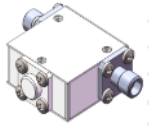
Double-junction, Coaxial, Broadband, Waveguide, Microstrip, Stripe line circulators & isolators can be customized by requirements.



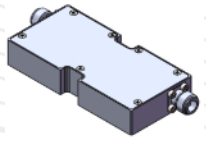
Coaxial Circulator



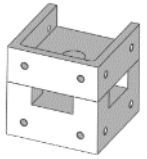
Coaxial Circulator



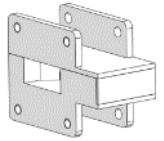
Coaxial Isolator



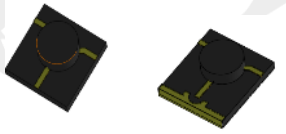
Coaxial Isolator



Waveguide Circulator

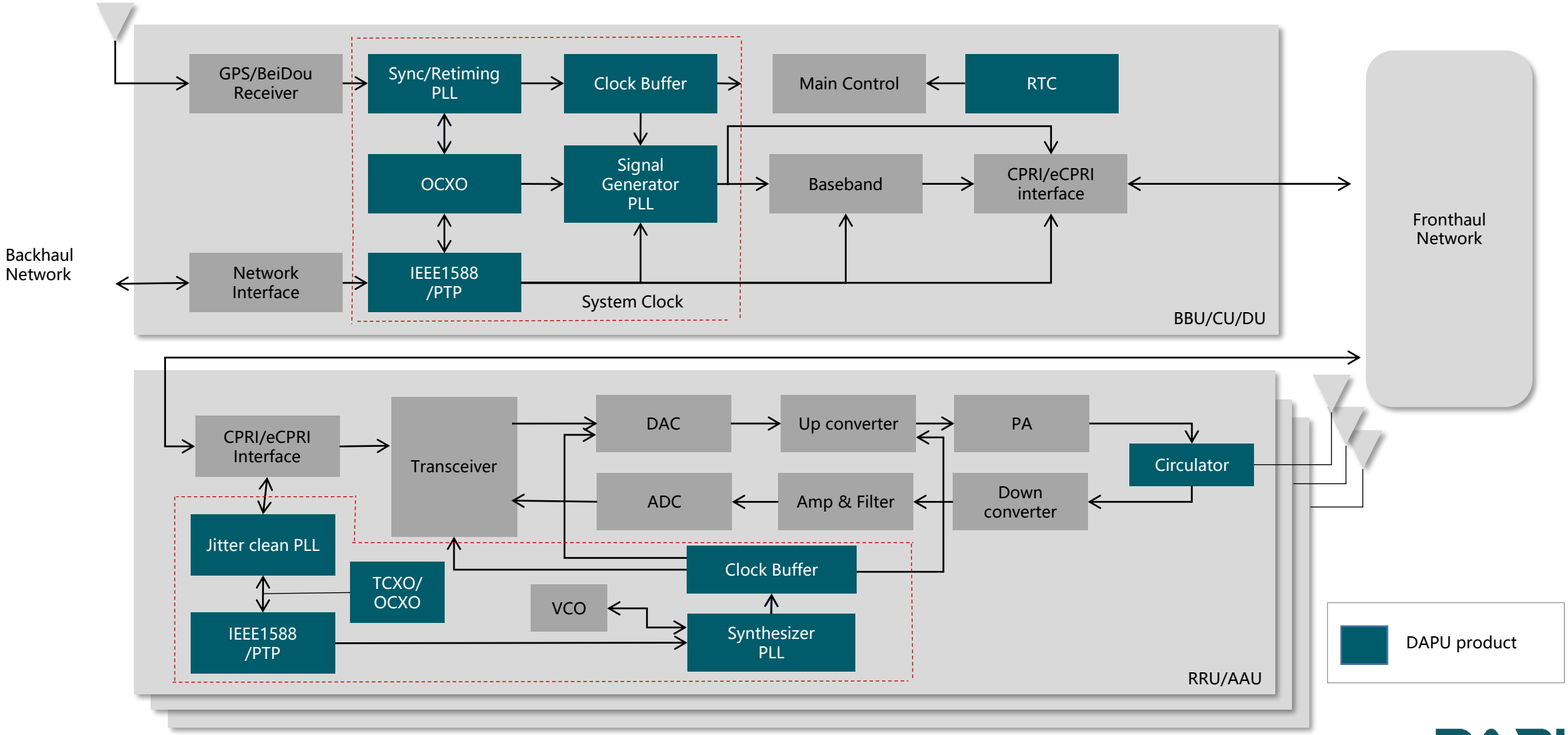


Waveguide Isolator

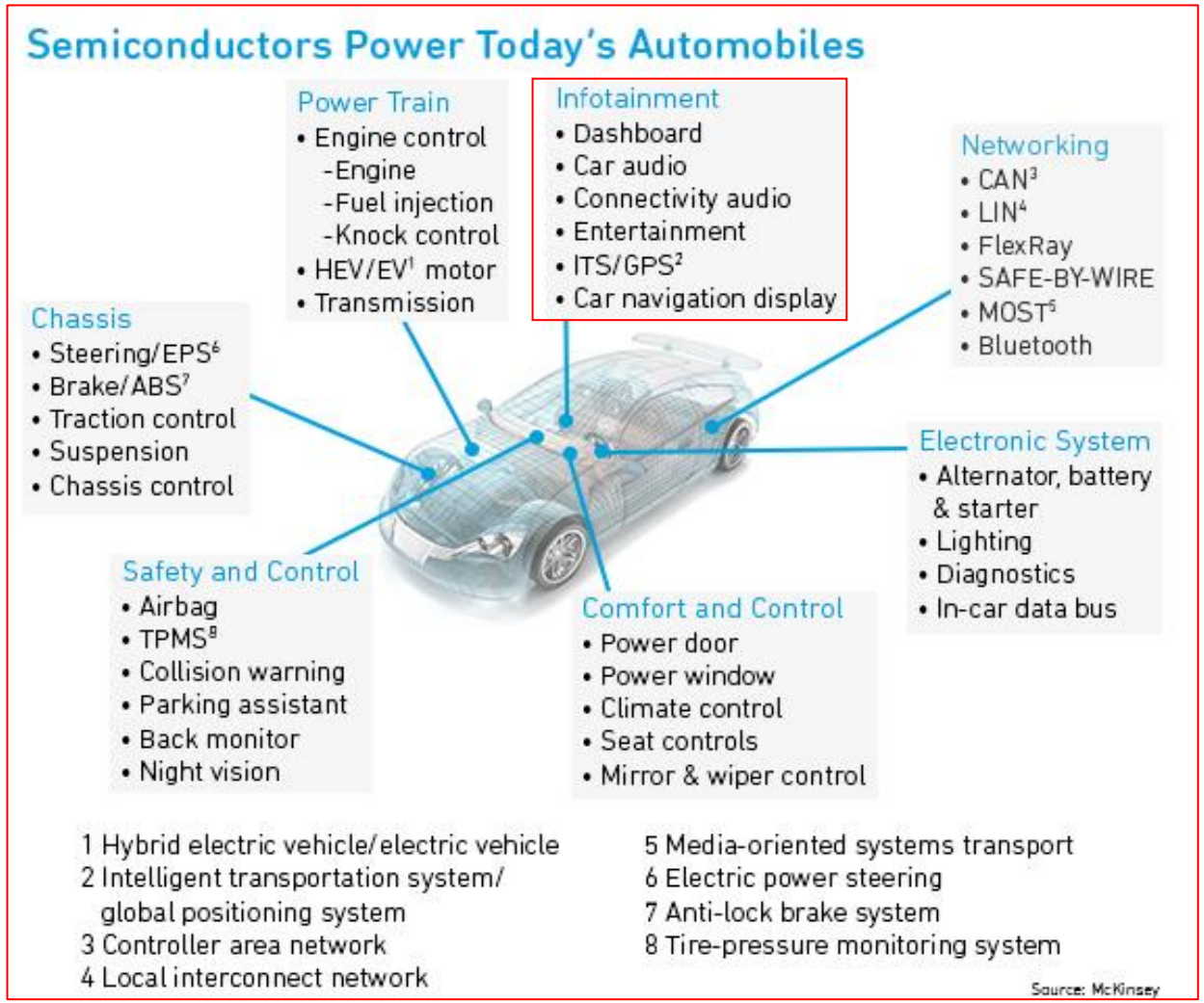


Microstrip Circulator & Isolator

DAPU Product In The Base Station



DAPU Products in Auto



DAPU Auto Grade

Crystal/SPXO/TCXO

RTC/Buffer

Application

BMS

T-BOX

TCU

EDR

VDC

ADAS

Dashboard

Audio/Video

Camera

DAPU

Part 3

Product Introduction

DAPU

Clock Timing Series

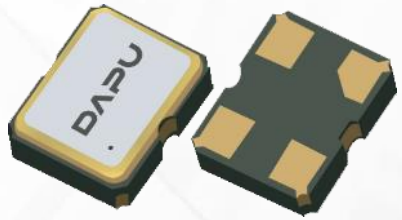
Crystal & SPXO

Application

- Automotive electronics
- Smart Terminal
- Smart Appliances
- Industrial Special Equipment
- Communication Equipment
- Wearable Device
- Computing Platform
- Consumer Electronics

Key Features

- Ultra-wide operating temperature range: -40℃~+125℃
- High precision: ±10ppm
- Low phase jitter: 42fs @156.25MHz
- Output: single-ended, differential
- Ultra-small and ultra-thin



DAPU

Crystal & SPXO

Crystals | KHz Frequency Range

Product Series	Dimension（mm）	Frequency Range（KHz）	Frequency Tolerance @25℃（ppm）	Operating Temperature (℃)	Load Capacitance（pF）
Crystals (KHz)	1.60*1.00*0.45	32.768KHz	±20	-40 ~ 85	6.0/7.0/9.0/12.5
	2.00*1.20*0.55	32.768KHz	±20	-40 ~ 85 -40 ~ 125	6.0/9.0/12.5
	3.20*1.50*0.80	32.768KHz	±20	-40 ~ 85 -40 ~ 125	6.0/9.0/12.5

Crystals | MHz Frequency Range

Model	Dimension (mm)	Frequency range(MHz)	Frequency tolerance@25℃ (ppm)	Frequency accuracy (ppm)	Operating temp. (℃)	Load capacitance (pF)	Recommended frequency (MHz)
DPX1612	1.60*1.20*0.35	24~54	±10/20	±10/20/30/50	-20 ~ 70 -40 ~ 85 -40 ~ 125	8/10/12/15/ 18/20/customized	12.00 12.288 16.00 19.20 20.00 25.00 26.00 38.40 40.00 48.00 52.00 ...
DPX2016	2.00*1.60*0.50	16~96					
DPX2520	2.50*2.00*0.55	12~54					
DPX3225	3.20*2.50*0.70	8~54					

DAPU

Crystal & SPXO

Automotive Grade SPXO | Single ended output

Model	Dimension (mm)	Frequency range (MHz)	Integrated frequency stability(ppm)	Operating temp. (℃)	Recommended frequency (MHz)
DPZ2520	2.5*2.0*1.0	32.768KHz/1~125	±10/20/30	-55 ~ +125	32.768KHz 12.00 / 12.288 16.00 / 16.384 24.00 / 25.00 32.00 / 48.00 50.00 / 54.00 125.00 ...
DPZ3225	3.2*2.5*1.2	32.768KHz/1~125			
DPZ5032	5.0*3.2*1.2	32.768KHz/1~160			
DPZ7050	7.0*5.0*1.2	32.768KHz/1~160			

Automotive Grade SPXO | Differential output

Model	Dimension (mm)	Frequency range (MHz)	Integrated frequency accuracy(ppm)	Operating temp. (℃)	Output waveform	Recommended frequency (MHz)
DPD3225	3.2*2.5*0.9	50 ~ 220	±30/50/75	-55 ~ +125	LVPECL/LVDS/HCSL	100 125 156.25
DPD5032	5.0*3.2*1.2	100 ~ 170			LVPECL/LVDS/HCSL	
DPD7050	7.0*5.0*1.7	62.5 ~ 220			LVPECL/LVDS	

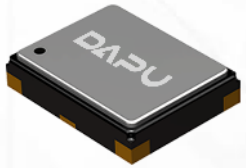
TCXO

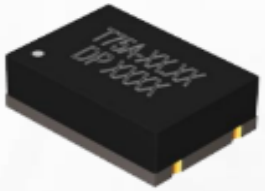
Application

- Wire communication
- Wireless communication
- Private power network
- Industrial control
- Instruments and Apparatuses
- Radar
- Radio station
- Intelligent terminal, etc.

Key Features

- High Temp stability： ±0.28/0.14/0.05 ppm
- Wide operating temperature range： -40℃~+85℃/95℃/105℃
- Low phase noise： -145dBc/Hz@1KHz
- Ultra low power consumption： 3.3mW
- Voltage control optional





DAPU

TCXO

Super wide temperature | low phase noise | high stability Stratum 3 clock

Product series	Frequency Range (MHz)	Temperature Stability (ppm)	Aging	Phase Noise (dBc/Hz@1K)	Operating temperature (℃)	Size (mm)	Recommend Frequency (MHz)
T75	9.60 ~ 54.00	±0.05/±0.1±0.28±0.5	±5 ppb/Day ±1 ppm/Year	-145/-138	-40 ~ +105 -55 ~ +105	SMD 7.0*5.0*2.2	10.00 / 19.20 20.00 / 30.72 38.88 / 80.00 89.60 …
T53	9.60 ~ 54.00	±0.05/±0.1±0.28±0.5	±5 ppb/Day ±1 ppm/Year	-145/-138	-40 ~ +105 -55 ~ +105	SMD 5.0*3.2*2.0	

Ultra small package | ultra low power Stratum 3 clock

Product series	Frequency Range (MHz)	Temperature Stability (ppm)	Aging	Phase Noise (dBc/Hz@1K)	Operating temperature (℃)	Size (mm)	Recommend Frequency (MHz)
T32	9.60 ~ 54.00	±0.28/±0.5/±1	±20 ppb/Day ±1 ppm/Year	-140	-40 ~ 105	SMD 3.2*2.5*0.9	10.00 19.20 20.00 25.00 26.00 32.00 38.88 80.00 89.60 …
T22	9.60 ~ 52.00	±0.28/±0.5/±1	±20 ppb/Day ±1 ppm/Year	-140	-40 ~ 105	SMD 2.5*2.0*0.8	
T21	9.60 ~ 52.00	±0.28/±0.5/±1	±20 ppb/Day ±1 ppm/Year	-140	-40 ~ 105	SMD 2.0*1.6*0.7	
T11	9.60 ~ 52.00	±0.28/±0.5/±1	±20 ppb/Day ±1 ppm/Year	-140	-40 ~ 105	SMD 1.6*1.2*0.5	

DAPU

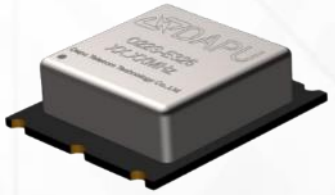
OCXO

Application

- Telecommunications
- Bases station
- Power grid Network
- Optical network
- Instruments

Key Features

- High temp stability： ±0.01ppb~ ±10ppb
- Ultra wide operating temperature range： -40℃~+85℃/-55℃~+105℃
- Ultra low Phase noise：-165dBc/Hz@1KHz
- Ultra low power consumption： 25mA @ 3.3v 25℃
- Small size to 7x9, 7x5 and 3225 in future （10mA）
- Ultra-low short-term stability: 2E-13/s



DAPU

OCXO

Ultra-high Stability

Model	Operating temp. (℃)	Temp. stability (ppb)	Daily aging	Yearly aging	Phase noise (dBc/Hz@1K)	Dimension (mm)	Recommended frequency (MHz)
O55A	-20 ~ +70	±0.2	±0.05ppb	±5.0ppb	-150	DIP 50.8*50.8*19	10
	-55 ~ +85	±1.0	±0.05ppb	±10.0ppb	-150	DIP 50.8*50.8*19	10
O23B	-40 ~ +85	±0.2	±0.5ppb	±0.02ppm	-155	DIP 36*27*12.7	10
	-55 ~ +85	±3.0	±0.5ppb	±0.02ppm	-155	DIP 36*27*12.7	10
O22B	-40 ~ +85	±0.2	±0.5ppb	±0.03ppm	-155	DIP 25.4*25.4*12.5	10
	-55 ~ +85	±3.0	±0.5ppb	±0.03ppm	-155	DIP 25.4*25.4*12.5	10
O22A	-40 ~ +85	±0.2	±0.5ppb	±0.05ppm	-155	DIP 20.5*20.5*10.8	10
	-55 ~ +85	±3.0	±0.5ppb	±0.05ppm	-155	DIP 20.5*20.5*10.8	10
O22S	-40 ~ +85	±0.2	±0.5ppb	±0.05ppm	-155	SMD 25.4*22.0*12.0	10
	-55 ~ +85	±3.0	±0.5ppb	±0.05ppm	-155	SMD 25.4*22.0*12.0	10

OCXO

Wide temperature range, Low phase noise, Low power consumption, Small size

Model	Operating temp. (℃)	Temp. stability (ppb)	Daily aging (ppb)	Yearly aging (ppm)	Phase noise (dBc/Hz@1K)	Dimension (mm)	Recommended frequency (MHz)
O11F	-40 ~ +85	±3.0	±1.0	±0.1	-158	SMD 14.4*9.5*6.5	10/12.8/ 19.2/20/ 25/30.72/ 38.88/48
	-55 ~ +105	±10.0	±3.0	±0.2	-158	SMD 14.4*9.5*6.5	
O79A	-40 ~ +85	±5.0	±1.0	±0.1	-155	SMD 9.7*7.5*3.9	
	-55 ~ +105	±10.0	±3.0	±0.2	-155	SMD 9.7*7.5*3.9	
O75A	-40 ~ +85	±10.0	±3.0	±0.1	-155	SMD 7.5*5.5*3.3	
	-55 ~ +105	±20.0	±3.0	±0.2	-155	SMD 7.5*5.5*3.3	

OCXO

Ultra-low phase noise

Model	Standard frequency (MHz)	Temp. stability (ppb)	Aging	Phase noise dBc/Hz @10Hz	Phase noise dBc/Hz @100Hz	Phase noise dBc/Hz @1KHz	Phase noise dBc/Hz @10KHz	Short-term stability	Operating temp. (℃)	Dimension (mm)
O55	10M	±1.0ppb/ 0.2ppb	±0.5ppb/day ±0.03ppm/year	-150	-162	-168	-170	1.5E-13/s	-40~75	DIP 50.8*50.8*16
O23	10M	±0.5ppb/ ± 1.0ppb	±0.5ppb/day ±0.03ppm/year	-148	-160	-168	-170	3E-13/s	-40~75	DIP 36*27*15
O22B	10M	±0.3ppb	±0.5ppb/day ±0.05ppm/year	-145	-160	-165	-170	5E-13/s	-55~85	DIP 25.4*25.4*12.7
O22A	100M	±10ppb/ ±20ppb	±1 ppb/day ±0.1 ppm/year	-108	-139	-163	-174	5E-12/s	-55 ~ +85	DIP 20.2*20.2*10.0
O22A	100M	±10ppb/ ±20ppb	±1 ppb/day ±0.1 ppm/year	-105	-135	-171	-175	5E-12/s	-55 ~ +85	DIP 20.2*20.2*10.0

OCXO

Ultra-low power consumption

Standard frequency (MHz)	Temp. stability (ppb)	Yearly aging (ppm)	Start-up power consumption	Stable power consumption @25℃	Phase noise dBc/Hz @1KHz	Operating temp. (℃)	Dimension (mm)
10M	±10	±0.1	900mW	100mW	-160	-55 ~ +85	DIP 19*19*10.5
10M	±5	±0.1	900mW	280mW	-160	-40 ~ +85	DIP 20.4*12.7*8.5
100M	±50	±0.3	1W	300mW	-155	-55 ~ +85	DIP 19*19*10.5
100M	±20	±0.3	1W	450mW	-155	-40 ~ +85	DIP 20.4*12.7*8.5

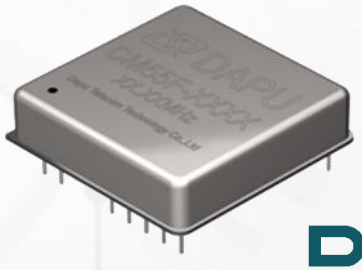
Clock Module

Application

- Wire communication
- Wireless communication
- Special power and rail transit network
- Precision instrument
- Base station
- Radio

Key Features

- Synchronization accuracy： ±30ns/ ±50ns
- Holdover ability： 1.5μs/24 Hours (△T=±30℃)
- Temperature Stability： ±0.01ppb (Rubidium replacement)
- Frequency accuracy： ±1.0E-12 (After 1pps24 hours of locking)
- 1S Short stability： ±1.0E-12
- Reference input： 1PPS
- Out put： 1PPS + TOD and frequency output

DAPU

Clock Module

Built in TCXO | ultra wide temperature

Product series	Synchronization accuracy（ns）	Holdover ability	Temp Stability（ppb）	Phase Noise (dBc/Hz@1K)	Operating Temperature (℃)	Size（mm）
CM11T	±50	±5μs/1 H(△T=±2℃)	±50	-138	-40 ~ 105	SMD 10.0*10.0*2.2

Built in OCXO | ultra high precision

Product series	Synchronization accuracy（ns）	Holdover ability	Temperature Stability (ppb)	Phase Noise (dBc/Hz@1K)	Operating Temperature (℃)	Size（mm）
CM11H	±50	±80us/24H(△T=±40℃)	±0.5	-160	-40 ~ 85	DIP 14.4*9.5*7.0mm,
CM22	±50	±1.5μs/8H (△T=±10℃)	±0.3	-155	-40 ~ 85	DIP 20.2*20.2*9.0
CM55	±30	±1.5μs/24H (△T=±15℃)	±0.1	-155	-40 ~ 85	SMD 51.0*51.0*13.0

Built in OCXO + GNSS receiver | ultra wide precision

Product series	Synchronization accuracy（ns）	Holdover ability	Temperature Stability (ppb)	Phase Noise (dBc/Hz@1K)	Operating Temperature (℃)	Size（mm）
CM66	±30	±1.5μs/24H (△T=±15℃)	±0.1	-155	-40 ~ 85	DIP 60.0*60.0*13.0

Built in OCXO + 1588/PTP Chip

Product series	Synchronization accuracy（ns）	Holdover ability	Temperature Stability (ppb)	Input/Output	Operating Temperature（℃）	Size（mm）
CM35P	±50	±1.5μs/8H (△T=±5℃)	Dual SGMII	1pps/TOD/IPCLK input 1pps/10M/TOD/OPCLK output	-20 ~ 75	SMD 40.0*35.0*13.0

Timing Server

Application

- Wire communication
- Wireless communication
- Special power and rail transit network
- Instruments and meters, etc.

Key Features

- Support multi-mode
- high-precision timing
- Fast track locking
- Ability to stay ahead of the industry

Timing Server

Outdoor (master clock)

Model	Operating temp. (℃)	Power consumption (W)	IEEE1588v2 & SyncE	GNSS (GPS/BDS/ GLONASS/GALILEO)	Frequency accuracy (@24h)	Sync. accuracy (ns)	Holdover (μs@24h)	Slave clock support (pcs)	Dimension (mm)
DPM1000	-40 ~ 65	30	Support	Support	±1.0E-12 (Tracking satellites)	±20	±1.5	128	250*190*75

Indoor (master clock /frequency source)

Model	Operating temp. (℃)	Power consumption (W)	IEEE1588v2 & SyncE	GNSS (GPS/BDS/ GLONASS/GALILEO)	Frequency accuracy (@24h)	Sync. accuracy (ns)	Holdover (μs@24h)	Slave clock support (pcs)	Dimension (mm)
DP4000	-40~65	20	Support	Support	±1.0E-12 (Tracking satellites)	±20	±1.5	512	432*210 *44
DP3100		9						128	432*146 *44
DP2000		7						N/A	438*220*44

Boundary Clock

Model	Operating temp. (℃)	Power consumption (W)	IEEE1588v2 & SyncE	GNSS (GPS/BDS/ GLONASS/GALILEO)	Frequency accuracy (@24h)	max| TE |(ns)	Holdover (μs@24h)	Slave clock support (pcs)	Dimension (mm)
DPB1000	-20 ~ 65	50	Support	N/A	±5.0E-8 (Free-run)	70	N/A	N/A	440*403*44

Clock Board

Operating temp. (℃)	IEEE1588v2 & SyncE	GNSS (GPS/BDS/ GLONASS/GALILEO)	Frequency accuracy (@24h)	Sync. accuracy (ns)	Holdover (μs@24h)	Interface	Dimension (mm)
-40 ~ 65	Support	Support	±1.0E-12 (Tracking satellites)	±20	±1.5	Customized	Customized

DAPU

Clock Chip Series

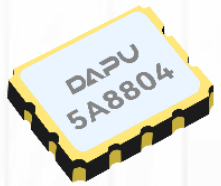
Real Time Clock - RTC

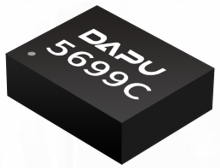
Application

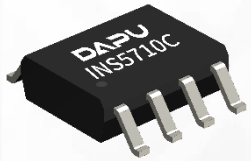
- Communication
- Security
- Automotive electronics
- Meter
- Smart home
- Industrial control
- Healthcare
- Office appliance
- Portable terminals
- Small electronic instruments, etc.

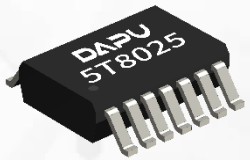
Key Features

- Built in TCXO: 32.768KHz
- High accuracy: ±2.0/±3.4/±5.0/±20ppm/±100ppm
- Low power consumption: 0.5 ~ 1.5μA
- Power auto switchover
- Fast start-up: 1ms
- Small size: SMD 3.2*2.5*1.0mm
  DNF1.2*1.2*0.55mm
  SOP 8 / SOP 14
- Support I²C/SPI interface









DAPU

Real Time Clock - RTC

Automotive Grade RTC for Automotive

MPN	Crystal, Temp. compensation	Port	Accuracy	Power consumption (μA)	Dimension(mm)	Backup power support
INS5A8900	Build-in	I²C	±5 ppm@-40℃ ~ +85℃ Ext. +80℃ ~ +105℃	1.5	3.2*2.5*0.9	Yes
INS5A8804	Build-in	I²C	±5 ppm@-40℃ ~ +85℃ Ext. +80℃ ~ +105℃	1.5	3.2*2.5*0.9	Yes
INS5A4000	Build-in	SPI	±5.0ppm@-40℃ ~ +85℃ Ext. ±5.0ppm@+80℃ ~ +105℃ Operable: +105℃ ~ +125℃	**0.5**	3.2*2.5*0.9	No
INS5A8000	Build-in	I²C	±5.0ppm@-40℃ ~ +85℃ Ext. ±5.0ppm@+80℃ ~ +105℃ Operable: +105℃ ~ +125℃	**0.5**	3.2*2.5*0.9	No

Ultra-high accuracy

MPN	Crystal, Temp. compensation	Port	Accuracy	Power consumption (μA)	Dimension(mm)	Backup power support
INS5902A	Build-in	I²C	**±2.0ppm**@-40℃ ~ +85℃ Ext. -50℃~ +85℃	1.0	3.2*2.5*1.0	Yes
INS5699C	Build-in	I²C	**±3.4ppm**@-40℃ ~ +85℃	1.0	3.2*2.5*1.0	Yes
INS5699S	Build-in	I²C	±5.0ppm@-40℃ ~ +85℃ Ext. ±10ppm @+85℃ ~ +105℃	1.0	3.2*2.5*1.0	Yes
INS5T8900	Build-in	I²C	±3.4ppm@-40℃ ~ +85℃ Opt.±5.0ppm@-40℃ ~ +85℃ Ext. ±10ppm @+85℃ ~ +105℃	1.0	3.2*2.5*1.0	Yes
INS5T8025	Build-in	I²C	±3.4ppm@-40℃ ~ +85℃	1.0	SOP14	No

Real Time Clock - RTC

High Accuracy

MPN	32K & Temp. compensation	Port	Accuracy	Power consumption(μA)	Dimension(mm)	Backup power support
INS5710C	Build-in 32K and **Temp. compensation**	I²C	±20ppm@-20℃ ~ +70℃ Ext.：-40℃ ~ +85℃	1.0	SOP8	No
INS5T8130	Build-in 32K	I²C	±5ppm(25℃) Temp. -40℃ ~ +85℃	0.7	3.2*2.5*0.9	Yes
INS5T8111	Build-in 32K	I²C	±5ppm(25℃) Temp. -40℃ ~ +85℃	**0.2**	3.2*2.5*0.9	Yes
INS5T4111	Build-in 32K	SPI	±5ppm(25℃) Temp. -40℃ ~ +85℃	**0.2**	3.2*2.5*0.9	Yes

RTC, No built in 32K

MPN	32K & Temp. compensation	Port	Accuracy	Power consumption(μA)	Dimension(mm)	Backup power support
INS5T8563 INS5B8563	No	SPI	±20ppm(25℃) Temp. -40℃ ~ +85℃	0.7	SOP8	No
INS5T850XX	No	**Dual I²C**	±20ppm(25℃) Temp. -40℃ ~ +85℃	0.7	HVSON12	No

Anti-shock RTC with wide temperature

MPN	Crystal, Temp. compensation	Port	Accuracy	Power consumption(μA)	Dimension(mm)	Backup power support
INS5S8563	Built-in silicon oscillator	I²C	±100ppm@-55℃ ~ +125℃	1.0	SOP8 DFN6L(2.0*2.0*0.75mm) FCDFN6(1.2*1.2*0.55mm)	No

All Silicon Oscillator (SO)

Application

- Telecommunication
- Server, storage
- Switch/router
- PCIe
- Data Center

Key Features

- No quartz and MEMS parts
- Differential clock: any frequency ranged from 10 kHz ~ 350 MHz, such as LVDS/LVPECL/HCSL, etc.
- Single output clock: any single frequency ranged from 10 kHz ~ 212.5MHz LVCMOS
- Jitter: 350fs (Typ.), compliant with PCIe Gen1/2/3/4/5
- Frequency Stability: +/- 50 ppm
- Support single-frequency/multi-frequency configuration/I2C configuration (optional spread spectrum scheme)
- Built-in LDO with reliable power supply noise rejection
- Standard lead time within 4~6 weeks
- Package: 5 x 3.2 mm, 3.2 x 2.5 mm

DAPU

All Silicon Oscillator (SO)

Differential/Single-ended Series (before delivery)

Model	Frequency range	Frequency accuracy (ppm)	Jitter(fs) RMS (12 kHz –20 MHz)	Operating temp. (℃)	Dimension (mm)
DSO3001	Differential:10KHz~350MHz Single-ended: 10KHz~212.5MHz	±50	350	-40 ~ 85	5.0*3.2*0.8 3.2*2.5*0.8

Single-ended Series(before delivery)

Model	Frequency range	Frequency accuracy (ppm)	Jitter(fs) RMS (12 kHz –20 MHz)	Operating temp. (℃)	Dimension (mm)
DSO311	10KHz~212.5MHz	±50	350	-40 ~ 85	3.2*2.5*0.8

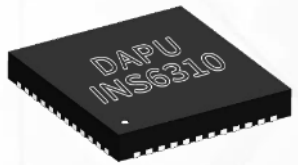
Clock Buffer

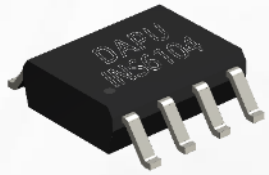
Application

- Communication equipment
- Power grid communication
- Private network
- Industrial control
- Instruments, etc.

Key Features

- Ultra-low additive jitter: <30 fs
- Multiple clock inputs: 3
- Multi-channel clock fanout: 10 channels
- Frequency range: DC ~ 200MHz
- Operating temperature range: -40℃~+85℃
- Supports multiple input clock level signals: LVDS, LVPECL, LVCMOS





Clock Buffer

Single output buffer

Part Number	Output channels	Output level	Output IO voltage (V)	Output frequency（MHz）	additional jitter（fs）	input level	Supply voltage
INS6110	10	LVCMOS	1.5/1.8/2.5/3.3	DC ~ 200	<50	LVDS/LVPECL/LVCMOS/Crystal	2.5/3.3
INS6105	5	LVCMOS	1.5/1.8/2.5/3.3	DC ~ 200	<50		2.5/3.3
INS6104	4	LVCMOS	2.5/3.3	DC ~ 100	<50	LVCMOS	2.5/3.3

Differential Buffer

Part Number	Output channels	Output level	Output IO voltage (V)	Output frequency（MHz）	additional jitter（fs）	input level	Supply voltage
INS6310	10	LVDS/LVP/ECL/HCSL	2.5/3.3	DC ~ 2500	<80	LVDS/LVPECL/LVCMOS/Crystal	2.5/3.3

Configurable buffer

Part Number	Output channels	Output level	Output IO voltage (V)	Output frequency（MHz）	additional jitter（fs）	input level	Supply voltage
INS6234	4	HCSL/LVCMOS	2.5/3.3	DC ~ 400	<30	LVDS/LVPECL/LVCMOS/Crystal	3.3

Ethernet Transceiver – PHY chip

Application

- DTV (Digital TV)
- MAU (Media Access Unit)
- Game Console
- Printer and Office Machine
- CNR (Communication and Network Riser)
- LED Display, DVD Player and Recorder
- Ethernet Hub, Ethernet Switch

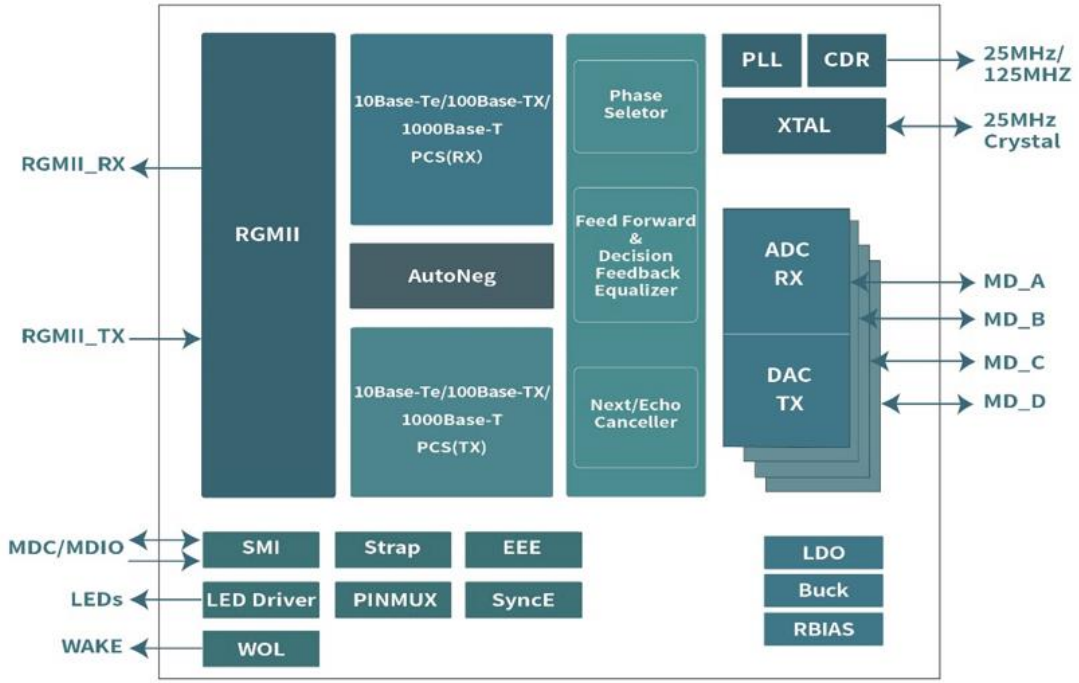
Key Features

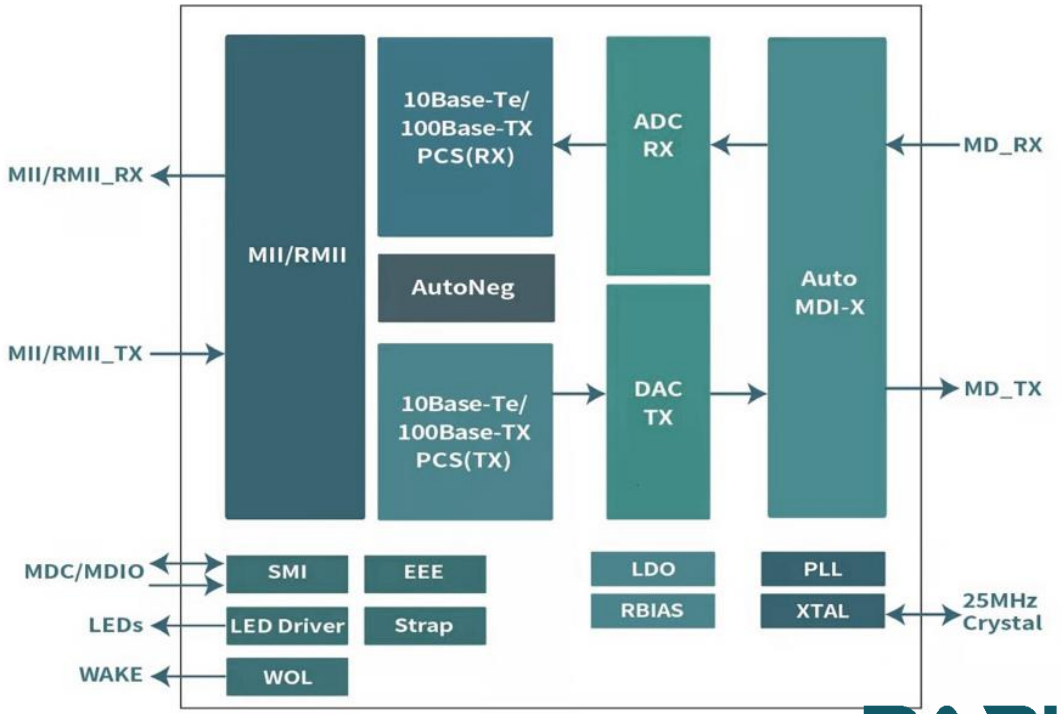
- RGMII MAC interface
- 1000BASE-T IEEE 802.3ab /100BASE-TX IEEE
- 802.3u/10BASE-Te IEEE 802.3 Compliant, EEE(IEEE 802.3az-2010)
- Supports SyncE
- WoL (Wake-on-LAN)
- Sleep Mode
- Crossover Detection & Auto-Correction
- Supports Parallel Detection
- Supports Base Line Wander Correction
- Supports Interrupt function
- Automatic polarity correction
- Integrate Linear/Buck Switching Regulator
- 120 meters at 1000Mbps over CAT.5E cable
- Configurable I/O voltage (3.3 V, 2.5 V, 1.8 V) signaling for RGMII

DAPU

Ethernet Transceiver – PHY chip

Part Number	MAC interface	physical interface	standard	Operating temperature	package	Remark
DAP8211R(I)	RGMII	Electrical interface	1000BASE-T 100BASE-TX 10BASE-Te	0℃ ~ +70℃	QFN 40-pin 5mm x 5mm	Support SyncE
DAP8201M(I)	MII/RMII	Electrical interface	100BASE-TX 10BASE-Te	0℃ ~ +70℃	QFN 32-pin 5mm x 5mm	





IEEE1588/PTP chip

Application

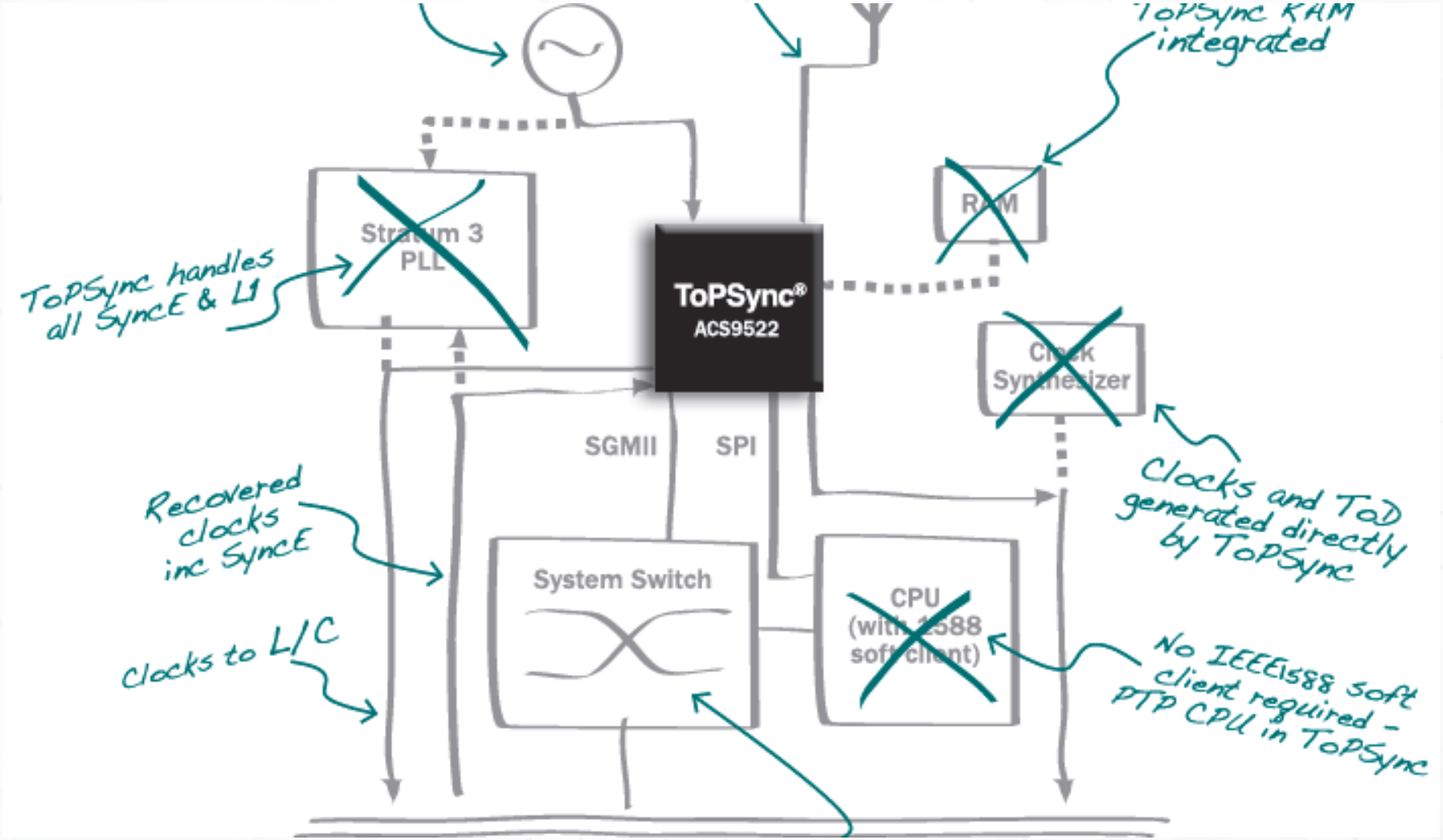
- xPON, GPON/EPON OLT
- PTN
- Network measurement
- Switcher, Router
- Broadcasting device
- Power grid network
- Small Cell
- NodeB

Key Features

- Most integrated single chip solution
- On chip packet filtering algorithm, BMCA and clock management
- No risk from CPU loading & multi-task
- Seamless integration of all clocks SETS, PTP, SyncE & hybrid
- Flexible Timestamping options (3 Modes)
- Simple interface used only for control and configuration of DPSync
- Free API code provided for easy design
- Zero-effort upgrade: new FW maintains API interface compatibility;
- Support for all system architectures
- Support for multiple standards:
- G.8261/G.8262/G.8265.1/G.8275.1/G.8273.2

DAPU

IEEE1588/PTP chip



IEEE1588/PTP chip

DPSync ACS952X is a high-performance IEEE1588V2 chip series owned by DAPU with complete intellectual property rights. The single chip integrates PLL, MCU, protocol stack IP, and proprietary patented message filtering algorithms, realizing the time synchronization function of the reference clock through packet-switched networks. It is widely used in wireless base stations, transmission networks, and computer networks.

Model	Package(mm)	Characteristics	Operating temp.(℃)
ACS9520	BGA 256 14*14	Support dual master and dual slave configurations	-40 ~ +85
ACS9521	BGA 324 19*19	Support dual master and dual slave configurations, built-in RAM	-40 ~ +85
ACS9522	BGA 324 19*19	Support dual master and dual slave configurations, built-in RAM, built-in SETs	-40 ~ +85
ACS9528	BGA 324 19*19	Support dual master configurations, built-in RAM	-40 ~ +85

DAPU

RF Components

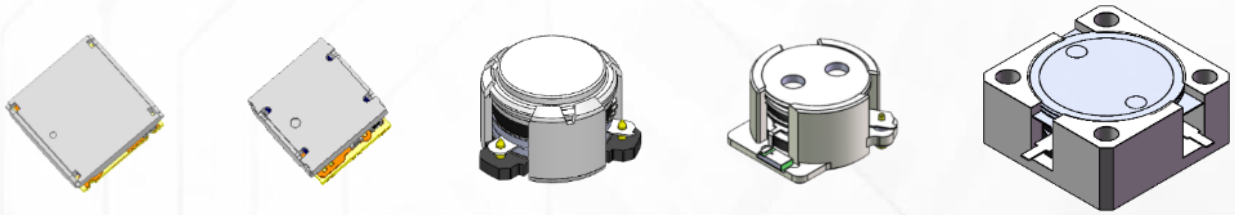
Circulator & Isolator

Application

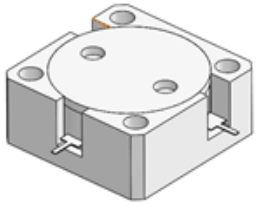
- Base station
- RRH/RRU/AAU
- Small Cell, DAS
- Microwave communication
- Satellite Communication
- Radar
- Broadcasting

Key Features

- Frequency: 200MHz ~ 9GHz
- Insertion loss: 0.15dB (minimum) 0.2~0.35dB (typical)
- Input and output return loss: 20dB (minimum) 25~28dB (typical)
- Isolation: 20dB (minimum) 25~30dB (typical)
- Third-order intermodulation IMD: 60dB (minimum) 65~80dB (typical)
- Input and output impedance real part: 50±5 ohm (tolerance can be adjusted according to customer requirements)

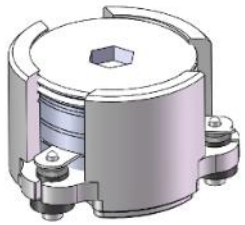


Product Advantage – Circulator/Isolator



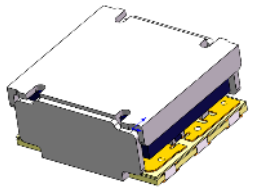
Drop In (high power) Circulator & Isolator

12.7*12.7mm 、19*19mm、19x25.4mm 、25.4*25.4mm、25.4x31.8mm、
31.8*31.8mm、31.8*38.8mm 、 38*38mm
35x42mm 、82x82mm etc.



SMD (high power) Circulator & Isolator

3.8mm*3.8mm、 Ø5mm、Ø7mm、 Ø10mm、 Ø12.5mm、
Ø15mm、 Ø25mm、9mm*9mm etc.



SMD (low power) Circulator & Isolator

5mm*5mm

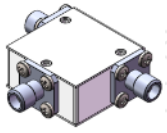
3 Product Series

45 Package Size

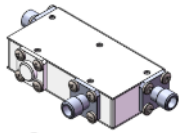
2500+ PNs

(Increasing)

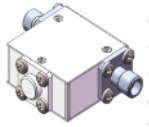
Double-junction, Coaxial, Broadband, Waveguide, Microstrip, Stripe line circulators & isolators can be customized by requirements.



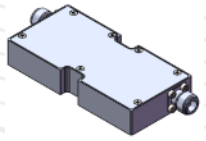
Coaxial Circulator



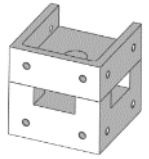
Coaxial Circulator



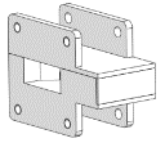
Coaxial Isolator



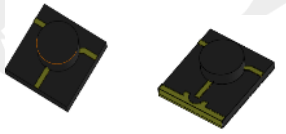
Coaxial Isolator



Waveguide Circulator

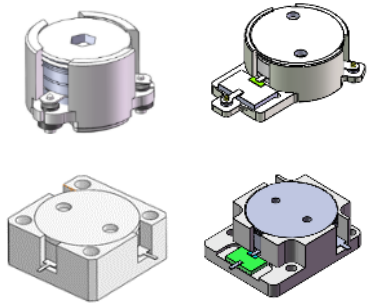
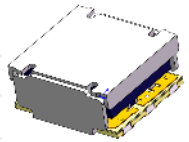


Waveguide Isolator



Microstrip Circulator & Isolator

Circulator & Isolator – Frequency range support

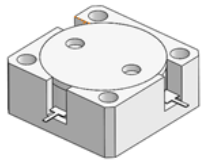
Product Type		Frequency range support (MHz)	Segmented frequency range (MHz)	Support bandwidth (MHz)	Comment
	High Power	100-15000	100-700	50MHz Max.	For example：300MHz-350MHz is the bandwidth of 50MHz (350-300=50)
			700-1000	10% Max.	For example：758MHz-821MHz is 8% bandwidth (821-758) / (821 + 758) / 2 = 8%
			1000-6000	25% Max.	For example：3300MHz-3800MHz is 14% bandwidth (3800-3300) / (3800 + 3300) / 2 = 14.1%
			6000-10000	Full Band	Full band support
	Low Power	700-5000	430-617	430-617 （<3%）	Could support full band, but the performance will deteriorate.
			617-960	617-960（<6%）	
			1805-2690	1805-2690（<6%）	
			3300-3900	3300-3900 （<10%）	
			4300-5000	4300-5000（<20%）	

- The wider the bandwidth, the worse the performance.
- For high power products, the lower the frequency, the larger the size.
- Customized services can be supported within the scope of frequency support.

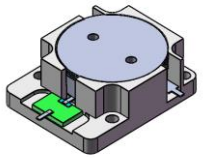
Drop in Series

Size： 12.7mm*12.7mm、20mm*20mm、25.4mm*31.7mm、30mm*30mm、31.8mm*31.8mm、 35mm*39mm、38.1mm*38.1mm、38.1mm*45.8mm、42mm*42mm 、 82mm*82mm etc.

Frequency： 100MHz ～15000MHz



Drop In Circulator



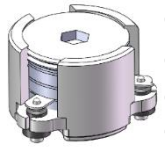
Drop In Isolator

Part Number	Product Type	Frequency (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP0453S	Isolator	1610-1675	12.7*12.7	CW	0.45	20	20	50	400
DP0180C	Circulator	930-960	20*20	CCW	0.4	20	19	100	800
DP0173S	Isolator	918-960	25.4*31.7	CW	0.25	23	21	200	1600
DP0166S	Isolator	925-960	25.4*31.7	CCW	0.25	23	21	200	1600
DP0168S	Isolator	1805-1880	25.4*31.7	CCW	0.25	23	21	200	1600
DP0175C	Circulator	390-400	30*30	CW	0.35	20	20	200	1600
DP0177C	Circulator	420-430	30*30	CW	0.35	20	20	200	1600
DP0037S	Isolator	410-470	35*39	CW	0.25	21	21	400	3000
DP1031C	Circulator	700-798	38.1*38.1	CW	0.4	23	21	400	3000
DP1033C	Circulator	960-1224	38.1*38.1	CW	0.4	23	21	400	3000
DP0355C	Circulator	1340-1530	38.1*38.1	CW	0.4	50	21	400	3000
DP0353C	Circulator	1615-1800	38.1*38.1	CW	0.4	50	21	400	3000
DP1023S	Isolator	700-798	38.1*45.8	CW	0.4	23	21	1000	/
DP1025S	Isolator	960-1224	38.1*45.8	CW	0.4	23	21	1000	/
DP0391C	Circulator	320-344	42*42	CW	0.4	20	21	400	3000
DP0392C	Circulator	320-344	42*42	CCW	0.4	20	21	400	3000

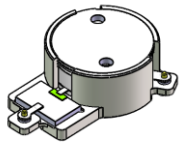
SMD (High power) Series

Size：ϕ12.5mm、 ϕ15.5mm

Frequency： 700MHz ～15000MHz & 50Watt ～ 80Watt



SMD Circulator



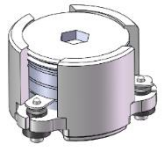
SMD Isolator

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP0411S	Isolator	1805-2170	12.5	CW	0.5	17	17	50	400
DP0412S	Isolator	1805-2170	12.5	CCW	0.5	17	17	50	400
DP0216C	Circulator	2110-2200	12.5	CCW	0.3	20	21	50	400
DP0240C	Circulator	2496-2690	12.5	CCW	0.35	18	20.8	50	400
DP0218C	Circulator	3400-3800	12.5	CCW	0.28	21	21	50	400
DP0133C	Circulator	3550-3700	12.5	CW	0.3	21	21	50	400
DP0134C	Circulator	3550-3700	12.5	CCW	0.3	21	21	50	400
DP1007S	Isolator	5850-7125	12.5	CW	0.5	20	18	50	400
DP1008S	Isolator	5850-7125	12.5	CCW	0.5	20	18	50	400
DP1005S	Isolator	7050-8550	12.5	CW	0.5	20	18	50	400
DP1006S	Isolator	7050-8550	12.5	CCW	0.5	20	18	50	400
DP0507C	Circulator	703-733	15.5	CW	0.5	21	21	75	600
DP0527C	Circulator	758-803	15.5	CW	0.35	18	18	75	600
DP0151C	Circulator	1805-1880	15.5	CW	0.35	18	21	75	600
DP0149C	Circulator	1880-1920	15.5	CW	0.35	18	21	75	600
DP0147C	Circulator	2110-2170	15.5	CW	0.35	18	21	75	600
DP0145C	Circulator	2300-2400	15.5	CW	0.35	18	21	75	600
DP0236C	Circulator	2300-2400	15.5	CCW	0.25	23	20	75	600
DP0339C	Circulator	2320-2370	15.5	CW	0.25	23	23	75	600
DP0340C	Circulator	2320-2370	15.5	CCW	0.25	23	23	75	600
DP0383C	Circulator	2496-2690	15.5	CW	0.35	18	18	75	600
DP0143C	Circulator	2500-2700	15.5	CW	0.35	18	21	75	600
DP0234C	Circulator	3400-3600	15.5	CCW	0.3	23	20	75	600
DP0245C	Circulator	3700-3980	15.5	CW	0.25	20	23	75	600

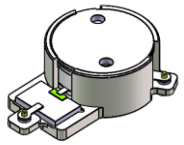
SMD (High power) Series

Size： ϕ18.2mm、 ϕ20.4mm、 ϕ21.4mm

Frequency： 600MHz ～6000MHz & 80Watt ～ 100Watt



SMD Circulator



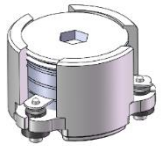
SMD Isolator

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP0223S	Isolator	1452-1496	18.2	CW	0.2	26	25	80	640
DP0193C	Circulator	758-803	20.4	CW	0.25	20	20	100	800
DP0194C	Circulator	758-803	20.4	CCW	0.25	20	20	100	800
DP0169C	Circulator	869-896	20.4	CW	0.25	21	21	100	800
DP0181C	Circulator	925-960	20.4	CW	0.25	21	21	100	800
DP0171C	Circulator	1805-1880	20.4	CW	0.25	23	23	100	800
DP0287S	Isolator	1805-1880	20.4	CW	0.25	21	21	100	800
DP0117C	Circulator	2100-2180	20.4	CW	0.28	23	23	100	800
DP0285S	Isolator	2110-2170	20.4	CW	0.25	21	21	100	800
DP0444C	Circulator	2110-2170	20.4	CCW	0.25	21	21	100	800
DP0471S	Isolator	2110-2170	20.4	CW	0.18	21	21	100	800
DP0429C	Circulator	2300-2400	20.4	CW	0.3	20	20	100	800
DP0547C	Circulator	2300-2400	20.4	CW	0.23	21	21	100	800
DP0446C	Circulator	2515-2675	20.4	CCW	0.25	21	21	100	800
DP0448C	Circulator	3300-3600	20.4	CCW	0.25	21	21	100	800
DP0313C	Circulator	3400-3600	20.4	CW	0.3	21	21	100	800
DP0488C	Circulator	4800-4960	20.4	CCW	0.25	21	21	100	800
DP0539C	Circulator	4800-5000	20.4	CW	0.25	20	20	100	800
DP0464S	Isolator	1805-1880	21.4	CCW	0.22	20	20	100	800
DP0247S	Isolator	2110-2200	21.4	CW	0.2	22	20	100	800
DP0466S	Isolator	2110-2200	21.4	CCW	0.22	20	20	100	800
DP0468S	Isolator	2620-2690	21.4	CCW	0.22	20	20	100	800

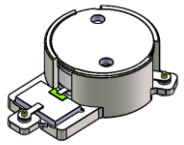
SMD (High power) Series

Size： ϕ27mm、ϕ27.28mm、ϕ27.3mm、ϕ28.4mm、ϕ28.5mm、ϕ31mm、ϕ35.1mm etc.

Frequency： 300MHz ～5000MHz & 150Watt ～ 300Watt



SMD Circulator



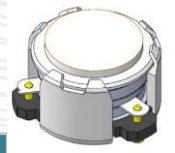
SMD Isolator

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP0442C	Circulator	758-798	27	CCW	0.25	21	21	200	1600
DP0275C	Circulator	758-803	27	CW	0.3	21	21	200	1600
DP0449C	Circulator	1805-1880	27	CW	0.25	23	23	200	1600
DP0450C	Circulator	1805-1880	27	CCW	0.25	23	23	200	1600
DP0273C	Circulator	2110-2170	27	CW	0.3	22	22	200	1600
DP0213S	Isolator	758-821	27.28	CW	0.3	19	19	250	2000
DP0227S	Isolator	791-821	27.28	CW	0.25	24	22	250	2000
DP0327C	Circulator	1930-1995	27.28	CW	0.25	20	20	250	2000
DP0331C	Circulator	2110-2200	27.28	CW	0.25	20	20	250	2000
DP0335C	Circulator	3700-3980	27.28	CW	0.25	20	20	250	2000
DP0249S	Isolator	758-803	27.3	CW	0.25	22	20	250	2000
DP0372C	Circulator	2496-2690	28.4	CCW	0.35	18	20.8	250	2000
DP1011S	Isolator	758-821	28.5	CW	0.35	18	18	250	2000
DP1009S	Isolator	617-652	31	CW	0.3	20	20	300	2400
DP0251S	Isolator	456-472.5	35.1	CW	0.3	20	20	300	2400
DP0265C	Circulator	617-652	35.1	CW	0.35	20	20	300	2400
DP0266C	Circulator	617-652	35.1	CCW	0.35	20	20	300	2400
DP0403S	Isolator	617-652	35.1	CW	0.35	20	20	300	2400
DP0469S	Isolator	361-366	62*127	CW	0.5	60	23	300	2400

SMD (High power) Series

Size：ϕ10mm

Frequency： 700MHz ～15000MHz



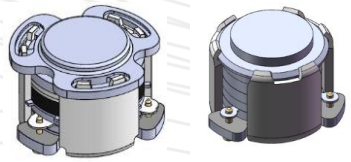
SMD Circulator

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP2779C	Circulator	758-788	10.2	CW	0.55/0.65	16/15	16/15	30	240
DP2780C	Circulator	758-788	10.2	CCW	0.55/0.65	16/15	16/15	30	240
DP3011C	Circulator	773-803	10.2	CW	0.55/0.65	16/15	16/15	30	240
DP3012C	Circulator	773-803	10.2	CCW	0.55/0.65	16/15	16/15	30	240
DP3085C	Circulator	758-803	10.2	CW	0.65/0.75	15/13	15/13	30	240
DP3086C	Circulator	758-803	10.2	CCW	0.65/0.75	15/13	15/13	30	240
DP3093C	Circulator	859-894	10.2	CW	0.45/0.55	18/16	18/16	30	240
DP3094C	Circulator	859-894	10.2	CCW	0.45/0.55	18/16	18/16	30	240
DP2611C	Circulator	925-960	10.2	CW	0.4	18/16	18/16	30	240
DP2612C	Circulator	925-960	10.2	CCW	0.4	18/16	18/16	30	240
DP0280C	Circulator	1805-1880	10.2	CCW	0.3	21	21	30	240
DP0325C	Circulator	1930-1995	10.2	CW	0.25	20	20	30	240
DP0312C	Circulator	2110-2170	10.2	CCW	0.3	21	21	30	240
DP0329C	Circulator	2110-2200	10.2	CW	0.25	20	20	30	240
DP0358C	Circulator	2320-2370	10.2	CCW	0.3	21	21	30	240
DP0189C	Circulator	2496-2690	10.2	CW	0.25	21	22	30	240
DP0220C	Circulator	3300-3600	10.2	CCW	0.3	20	20	30	240
DP0013C	Circulator	3300-3800	10.2	CW	0.4	20	20	30	240
DP0187C	Circulator	3400-3600	10.2	CW	0.23	21	22	30	240
DP0027C	Circulator	3400-3700	10.2	CW	0.23	20	20	30	240
DP0231C	Circulator	3400-3800	10.2	CW	0.3	20	20	30	240
DP0232C	Circulator	3400-3800	10.2	CCW	0.3	20	20	30	240
DP0209C	Circulator	3600-3800	10.2	CW	0.35	20	20	30	240
DP0229C	Circulator	3600-3800	10.2	CW	0.23	21	22	30	240
DP0230C	Circulator	3600-3800	10.2	CCW	0.23	21	22	30	240
DP0333C	Circulator	3700-3980	10.2	CW	0.25	20	20	30	240
DP0297C	Circulator	4800-5000	10.2	CW	0.32	20	20	30	240
DP0298C	Circulator	4800-5000	10.2	CCW	0.32	20	20	30	240
DP0490C	Circulator	4800-5200	10.2	CCW	0.4	17	7	30	240

SMD (High power) Series

Size：ϕ7mm

Frequency： 1500MHz ～15000MHz



SMD Circulator

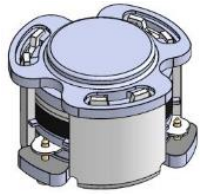
Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP0363C	Circulator	2320-2370	7	CW	0.3	22	22	20	160
DP1021C	Circulator	2320-2370	7	CW	0.55	17	17	20	160
DP0407C	Circulator	2496-2690	7	CW	0.3	20	20	20	160
DP0408C	Circulator	2496-2690	7	CCW	0.3	20	20	20	160
DP0309C	Circulator	2515-2675	7	CW	0.3	20	22	20	160
DP0310C	Circulator	2515-2675	7	CCW	0.3	20	22	20	160
DP0283C	Circulator	3300-3600	7	CW	0.35	19	19	20	160
DP0284C	Circulator	3300-3600	7	CCW	0.35	19	19	20	160
DP0119C	Circulator	3300-3800	7	CW	0.5	16	16	20	160
DP0401C	Circulator	3400-3600	7	CW	0.23	21	22	20	160
DP0402C	Circulator	3400-3600	7	CCW	0.23	21	22	20	160
DP0277C	Circulator	3400-3700	7	CW	0.33	18	18	20	160
DP0417C	Circulator	3400-3800	7	CW	0.3	20	22	20	160
DP0418C	Circulator	3400-3800	7	CCW	0.3	20	22	20	160
DP0289C	Circulator	3420-3800	7	CW	0.35	20	21	20	160
DP1019C	Circulator	3450-3650	7	CW	0.35	20	20	20	160
DP0515C	Circulator	3500-4000	7	CW	0.45	17	17	20	160
DP1027C	Circulator	3520-3560	7	CW	0.35	20	20	20	160
DP1028C	Circulator	3520-3560	7	CCW	0.35	20	20	20	160
DP0281C	Circulator	3550-3700	7	CW	0.3	20	20	20	160
DP0282C	Circulator	3550-3700	7	CCW	0.3	20	20	20	160
DP0405C	Circulator	3600-3800	7	CW	0.25	21	20	20	160
DP0406C	Circulator	3600-3800	7	CCW	0.25	21	20	20	160
DP1029C	Circulator	3700-3800	7	CW	0.35	20	20	20	160
DP1030C	Circulator	3700-3800	7	CCW	0.35	20	20	20	160
DP0121C	Circulator	4400-5000	7	CW	0.5	16	16	20	160

- φ7mm products could cover the frequency range from 1.8GHz to 8GHz.

SMD φ7mm（2.6GHz & 3.5GHz）

Key parameters	Specification （Ø7mm）	Dapu（Ø7mm）
Frequency (MHz)	2496 ~ 2690	2496 ~ 2690
Isolation (dB)	20	20
Return Loss (dB)	22	22
Insertion Loss (dB)	**0.30**	**0.26**
Impedance (Ω)	50	50
3rd IMD (Max.) (dBc)	-60 (2 x 5W)	**-70 (2 x 10W)**
2nd Attenuation（dB）	20	**30**
Power FWD/REV/PEAK（W）	30/30/150	30/30/15
Operating Temp. (℃)	-40 to +110	-40 to +110

Key parameters	Specification （Ø7mm）	Dapu（Ø7mm）
Frequency (MHz)	3400 ~ 3800MHz & 3800-4200MHz	3400 ~ 3800MHz & 3800-4200MHz
Isolation (dB)	20	20
Return Loss (dB)	22	22
Insertion Loss (dB)	**0.35**	**0.3**
Impedance (Ω)	50	50
3rd IMD (Max.) (dBc)	-60 (2 x 5W)	**-65 (2 x 10W)**
2nd Attenuation（dB）	10	**15**
Power FWD/REV/PEAK（W）	30/30/150	30/30/150
Operating Temp. (℃)	-40 to +110	-40 to +110

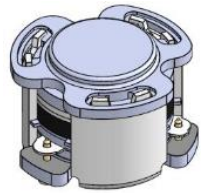


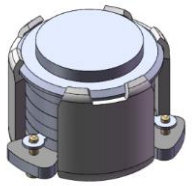
Ø7mm

* Full temperature performance

SMD φ7mm（Main band Performance ）

DAPU PN	Frequency（MHz）	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	IM3（dBc）	Power FWD/REV/PEAK (W)
DP2665C	2496-2690	CW	0.28 Max.	22	22	-70@2X10W,1MHz Spacing	30/30/150
DP2683C	2300-2400	CW	0.28 Max.	22	22	-70@2X10W,1MHz Spacing	30/30/150
DP0401C	3400-3600	CW	0.25 Max.	22	22	-65@2X5W,1MHz Spacing	30/30/150
DP2067C	3400-3800	CW	0.33 Max.	21	21	-60@2X5W,1MHz Spacing	30/30/150
DP0277C	3400-3700	CW	0.3 Max.	21	22	-60@2X5W,1MHz Spacing	30/30/150





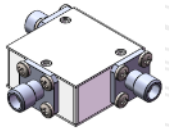
Ø7mm

Frequency（MHz）	Insertion Loss（dB）			2nd Attenuation（dB）		
	2021.08	2022Q4	2023Q4	2022.08	2022Q4	2023Q4
2496-2690	0.35	0.33	**0.26**	20	22	**30**
3400-3600	0.3	0.26	**0.23**	21	22	**25**
3420-3800	0.35	0.33	**0.3**	16	18	**18**
3400-3700	0.33	0.3	**0.3**	20	22	**22**
2400-2500	0.25	0.3	**0.15**			**20**

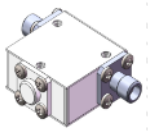
- φ7mm products could cover the frequency range from 1.8GHz to 10GHz.

Coaxial Series

- Frequency range：700MHz ~ 18GHz
- Connector type: N/SMA etc.
- Customized services can be supported by requirement.



Coaxial Circulator

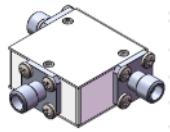


Coaxial Isolator

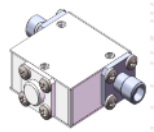
Product Type	Frequency Band (GHz)	Bandwidth （Max.）	Insertion Loss (dB)	Isolation (dB)	VSWR	Temp. Range （℃）	Size （L*W*H） (mm)
Circulator	0.7-1.0	10%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	30*30*15
Circulator	1.4-2.0	10%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	26*26*20
Circulator	1.9-2.4	10%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	33*33*13
Circulator	2.0-3.0	5%	0.4 Max.	20 Min.	1.25 Max.	-40 ~ +70	16*16*13
Circulator	3.0-4.0	10%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	14*14*13
Circulator	4.0-5.0	10%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	17*12*8.3
Circulator	5.0-6.0	10%	0.4 Max.	20 Min.	1.25 Max.	-40 ~ +70	16*11*9
Circulator	6.0-9.0	10%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	20.5*15*13
Circulator	8.8-10.2	10%	0.4 Max.	20 Min.	1.25 Max.	-40 ~ +85	14*10*10
Circulator	10.0-18.0	8%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	33*30*15
Isolator	0.76-1.0	5%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	33*30*11.5
Isolator	0.85-1.5	5%	0.4 Max.	20 Min.	1.25 Max.	-40 ~ +70	39*30*15
Isolator	1.5-2.2	5%	0.4 Max.	20 Min.	1.25 Max.	-40 ~ +70	22*14*9.5
Isolator	2.2-3.0	10%	0.4 Max.	20 Min.	1.25 Max.	-40 ~ +70	20*12*8.3
Isolator	3.0-4.5	10%	0.4 Max.	20 Min.	1.25 Max.	-40 ~ +70	20*12*8.3
Isolator	4.5-7.0	10%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	22.5*14*13
Isolator	7.0-10.0	10%	0.4 Max.	20 Min.	1.25 Max.	-40 ~ +70	20*10*10
Isolator	10.0-18.0	8%	0.5 Max.	20 Min.	1.25 Max.	-40 ~ +70	23*14*13

Coaxial Series (Wideband)

- Frequency range： 1GHz ~ 18GHz
- Customized services can be supported by requirement.



Coaxial Circulator

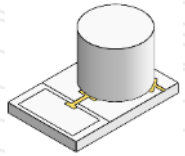


Coaxial Isolator

Product Type	Frequency Band (GHz)	Insertion Loss (dB)	Isolation (dB)	VSWR	Temp. Range （℃）	Joint Type	Size （L*W*H） (mm)
Circulator	1-2	0.8 Max.	15 Min.	1.4 Max.	-10 ~ +50	SMA	66*64*26
Circulator	2-4	0.8 Max.	15 Min.	1.4 Max.	-10 ~ +50	SMA	34*32*21
Circulator	3-6	1.1 Max.	11 Min.	1.8 Max.	-10 ~ +50	SMA	50*46*15
Circulator	8-12	0.8 Max.	15 Min.	1.4 Max.	-25 ~ +70	SMA	30*27.5*14.5
Circulator	12-18	1 Max.	15 Min.	1.4 Max.	-10 ~ +50	SMA	20.4*19*14
Isolator	4-8	1 Max.	15 Min.	1.4 Max.	-10 ~ +50	SMA	32*20*14
Isolator	6-12	0.8 Max.	15 Min.	1.4 Max.	-25 ~ +70	SMA	30*27.5*14.5

Microstrip Series

- Currently the microstrip circulator & Isolator could support S/C/X/K/Ku/K/Ka bands.
- Customized services can be supported by requirement.
- Size: 7X7mm & 8x8mm



Product Type	Frequency Band (GHz)	Bandwidth (Max.)	Insertion Loss (dB Max.)	Isolation (dB)	VSWR (Max.)	Temp. Range (℃)
Circulator	6.6-8.0	7%	0.4	20	1.25	-55 ~ +85
Circulator	8.0-12.0	15%	0.4	20	1.25	-55 ~ +85
Circulator	12.0-18.0	15%	0.4	20	1.25	-55 ~ +85
Circulator	14.0-15.0	Full	0.5	20	1.25	-55 ~ +85
Circulator	16.5-17.5	Full	0.5	20	1.25	-55 ~ +85
Circulator	15.5-17.5	Full	0.5	20	1.30	-55 ~ +85
Circulator	15.0-18.0	Full	0.6	18	1.35	-55 ~ +85
Circulator	19.6-21.0	Full	0.6	18	1.35	-55 ~ +85
Circulator	21.0-22.0	Full	0.6	18	1.35	-55 ~ +85
Isolator	6.6-8.0	15%	0.4	20	1.25	-55 ~ +85
Isolator	8.0-12.0	15%	0.4	20	1.25	-55 ~ +85
Isolator	12.0-18.0	15%	0.4	20	1.25	-55 ~ +85
Isolator	15.5-16.5	Full	0.5	20	1.25	-55 ~ +85
Isolator	16.5-17.5	Full	0.5	20	1.25	-55 ~ +85
Isolator	15.5-17.5	Full	0.5	20	1.30	-55 ~ +85
Isolator	15.0-18.0	Full	0.6	18	1.35	-55 ~ +85
Isolator	19.6-21.0	Full	0.6	18	1.35	-55 ~ +85
Isolator	21.0-22.0	Full	0.6	18	1.35	-55 ~ +85

SMD φ7mm (1.8GHz ~ 8GHz)

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP0629C	Circulator	1805-1880	7	CW	0.3	21	21	30	150
DP1021C	Circulator	2320-2370	7	CW	0.3	17	17	15	100
DP0407C	Circulator	2496-2690	7	CW	0.3	20	20	40	250
DP0408C	Circulator	2496-2690	7	CCW	0.3	20	20	40	250
DP0309C	Circulator	2515-2675	7	CW	0.3	20	22	30	150
DP0310C	Circulator	2515-2675	7	CCW	0.3	20	22	30	150
DP0283C	Circulator	3300-3600	7	CW	0.35	19	19	15	60
DP0284C	Circulator	3300-3600	7	CCW	0.35	19	19	15	60
DP0119C	Circulator	3300-3800	7	CW	0.5	16	16	15	100
DP0401C	Circulator	3400-3600	7	CW	0.23	21	22	25	200
DP0402C	Circulator	3400-3600	7	CCW	0.23	21	22	25	200
DP0277C	Circulator	3400-3700	7	CW	0.33	18	18	50	200
DP0417C	Circulator	3400-3800	7	CW	0.3	20	22	30	150
DP0418C	Circulator	3400-3800	7	CCW	0.3	20	22	30	150
DP0289C	Circulator	3420-3800	7	CW	0.35	20	21	15	60
DP1019C	Circulator	3450-3650	7	CW	0.35	20	20	30	150
DP0515C	Circulator	3500-4000	7	CW	0.45	17	17	30	200
DP1027C	Circulator	3520-3560	7	CW	0.35	20	20	30	150
DP1028C	Circulator	3520-3560	7	CCW	0.35	20	20	30	150
DP0281C	Circulator	3550-3700	7	CW	0.3	20	20	15	60
DP0282C	Circulator	3550-3700	7	CCW	0.3	20	20	15	60
DP0405C	Circulator	3600-3800	7	CW	0.25	21	20	25	200
DP0406C	Circulator	3600-3800	7	CCW	0.25	21	20	25	200
DP1029C	Circulator	3700-3800	7	CW	0.35	20	20	30	150
DP1030C	Circulator	3700-3800	7	CCW	0.3	20	20	30	150
DP0121C	Circulator	4400-5000	7	CW	0.5	16	16	15	100

- φ7mm products could cover the frequency range from 1.8GHz to 6GHz.

Wider bandwidth and better IL

- The PNs which could cover 758MHz ~ 960MHz and 1805MHz ~ 2700MHz are the latest wideband products, especially for DP2116S (758MHz ~ 960MHz) which is in mass production now.

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	IM3 (dBc)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP2122C	SMD（Circulator）	617-768	ϕ25.4	CCW	**0.35**	20	-65	20	300	2400
DP2116S	**Drop In（Isolator）**	**758-960**	**31.8*31.8**	**CCW**	**0.3/0.35**	**20/18**	**-65**	**20/18**	**300**	**2400**
DP2265C	SMD（Circulator）	1805-2170	Φ7	CW	**0.6/0.8**	15	-55	15	25	200
DP2154C	SMD（Circulator）	1805-2200	ϕ10.2	CCW	**0.35/0.45**	19	-60	19	50	300
DP2133C	SMD（Circulator）	1805-2170	ϕ25.4	CCW	**0.15**	23	-70	23	200	1500
DP2134C	SMD（Circulator）	1805-2170	ϕ25.4	CW	**0.15**	23	-70	23	200	1500
DP2949S	SMD（Circulator）	1805-2200	ϕ25.4	CW	**0.2**	23	-70	23	200	1500
DP2950S	SMD（Circulator）	1805-2200	ϕ25.4	CCW	**0.2**	23	-70	23	200	1500
DP0225S	Drop In（Isolator）	1805-2170	31.8*31.8	CCW	**0.18**	23	-75	23	300	2400
DP0226S	Drop In（Isolator）	1805-2170	31.8*31.8	CCW	**0.18**	23	-75	23	300	2400
DP0885C	Drop In（Circulator）	1805-2690	25.4*25.4	CW	0.5/0.75	17	-40	17	150	1500
DP0887C	Drop In（Circulator）	1805-2690	31.8*31.8	CW	0.5/0.65	18	-40	18	300	2400
DP0883C	SMD（Circulator）	1805-2600	ϕ20.4	CW	0.5/0.75	14	-58	14	150	1200

Wider bandwidth and better IL

- The PNs which could cover 1805MHz ~ 2700MHz are the latest wideband products.

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	IM3 2X50Watt (dBc)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP2519C	SMD（Circulator）	2300-2690	Φ23.5	CW	0.25	**-70**	20	20	150	1000
DP2520C	SMD（Circulator）	2300-2690	Φ23.5	CCW	0.25	-70	20	20	150	1000
DP2523C	SMD（Circulator）	2110-2690	Φ23.5	CW	0.25	-70	22/20	22/20	200	1500
DP2524C	SMD（Circulator）	2110-2690	Φ23.5	CCW	0.25	-70	22/20	22/20	200	1500
DP2521C	SMD（Circulator）	1805-2690	Φ23.5	CW	0.4/0.45	-70	14.5/13	14.5/13	200	1500
DP2522C	SMD（Circulator）	1805-2690	Φ23.5	CCW	0.4/0.45	-70	14.5/13	14.5/13	200	1500
DP2525C	SMD（Circulator）	1805-2200	Φ20.4	CW	0.25	-70	22/20	22/20	150	1000
DP2526C	SMD（Circulator）	1805-2200	Φ20.4	CCW	0.25	-70	22/20	22/20	150	1000
DP2877C	SMD（Circulator）	1800-2175	Φ15.5	CW	0.25/0.30	-70	23/21	23/21	100	800
DP2878C	SMD（Circulator）	1800-2175	Φ15.5	CCW	0.25/0.30	-70	23/21	23/21	100	800
DP2949S	SMD（Circulator）	1805-2200	Φ23.5	CW	0.20	-70	23	23	200	1500
DP2950S	SMD（Circulator）	1805-2200	Φ23.5	CCW	0.20	-70	23	23	200	1500
DP2937S	SMD（Circulator）	1432-1880	Φ23.5	CW	0.25	-70	20	20	200	1500
DP2938S	SMD（Circulator）	1432-1880	Φ23.5	CCW	0.25	-70	20	20	200	1500

Drop in & SMD (high power) lower IM3 products

Customized services can be supported by requirement. All IM3 tested by: **2x50W@1 MHz Spacing** -40 to +120 ℃

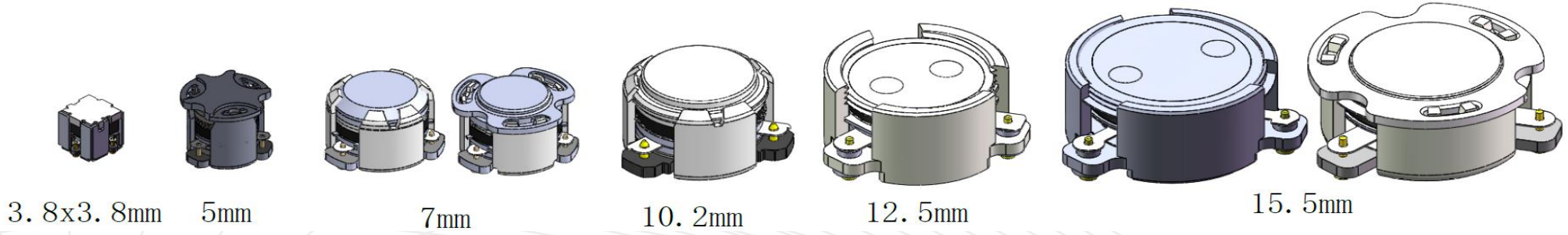
Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	IM3 (dBc)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP0255S	SMD（Isolator）	758-803	ϕ25.4	CW	0.25	-80dBc	23	23	300	2400
DP0567S	SMD（Isolator）	758-821	ϕ25.4	CW	0.25	-75dBc	23	23	300	2400
DP2049S	SMD（Isolator）	925-960	ϕ25.4	CW	0.25	-80dBc	23	23	200	2000
DP0675S	SMD（Isolator）	925-960	ϕ25.4	CW	0.25	-80dBc	23	23	200	2000
DP438S	SMD（Isolator）	1805-2170	ϕ25.4	CCW	0.3	-80dBc	21	21	300	1500
DP2211S	Drop In（Isolator）	791-960	31.8*38.1	CCW	0.3	-70dBc	21	21	250	2500
DP2382S	Drop In（Isolator）	758-894	31.8*38.1	CCW	0.3	-70dBc	21	21	250	2500
DP2116S	Drop In（Isolator）	758-960	31.8*31.8	CCW	0.35	-65dBc	20	20	300	2500
DP2474S	Drop In（Isolator）	758-960	31.8*31.8	CCW	0.35	-67dBc	20	20	300	2500
DP2048S	Drop In（Isolator）	758-960	35*42	CCW	0.30	-65dBc	22	22	150	1500
DP2949S	SMD（Isolator）	1805-2200	ϕ25.4	CW	0.25	-70dBc	23	223	200	1500

Smaller size

Size：ϕ5mm 、 & 3.8mm*3.8mm

- Currently ϕ7mm is the smallest size in mass production, ϕ5mm & 3.8mm*3.8mm are the newest product series in process, and the more smaller products in pre-research.

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP2891C	Circulator	1805-1880	Φ5.0	CW	0.5	17	17	10	100
DP2895C	Circulator	2110-2270	Φ5.0	CW	0.5	18	18	10	100
DP2303C	Circulator	2300-2400	Φ5.0	CW	0.5	17	17	10	100
DP0895C	Circulator	2496-2690	Φ5.0	CW	0.7	17	17	10	100
DP0897C	Circulator	3400-3600	Φ5.0	CW	0.5	19	19	10	100
DP0899C	Circulator	3400-3800	Φ5.0	CW	0.7	17	17	10	100
DP0901C	Circulator	3500-3700	Φ5.0	CW	0.6	18	18	10	100
DP2317C	Circulator	4800-5000	Φ5.0	CW	0.4	22	22	10	100
DP2609C	Circulator	7100-8500	Φ5.0	CW	0.45	20	20	10	80
DP2607C	Circulator	6500-7100	Φ5.0	CW	0.45	20	20	10	80
DP2856C	Circulator	8500-10500	Φ5.0	CCW	0.55	17	17	10	80
DP0495C	Circulator	6GHz+	3.8*3.8	CW	0.6	18	18	3	20



Pre-U6G

- The PNs which could cover 6000MHz ~ 15000MHz smaller size 3.8*3.8mm, ϕ5mm, ϕ7mm are available now.

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP0495C	SMD (Circulator)	6400-6800	3.8x3.8	CW	0.45/0.6	18	18	3	20
DP0496C	SMD (Circulator)	6400-6800	3.8x3.8	CCW	0.45/0.6	18	18	3	20
DP2131C	SMD (Circulator)	6425-6825	Φ7.0	CW	0.35	20	20	20	150
DP2132C	SMD (Circulator)	6425-6825	Φ7.0	CCW	0.35	20	20	20	150
DP2585C	SMD (Circulator)	6500-7100	Φ7.0	CW	0.35	20	20	20	150
DP2586C	SMD (Circulator)	6500-7100	Φ7.0	CCW	0.35	20	20	20	150
DP2587C	SMD (Circulator)	7100-8500	Φ7.0	CW	0.35	20	20	20	150
DP2588C	SMD (Circulator)	7100-8500	Φ7.0	CCW	0.35	20	20	20	150
DP2607C	SMD (Circulator)	6500-7100	Φ5.0	CW	0.45	20	20	10	80
DP2608C	SMD (Circulator)	6500-7100	Φ5.0	CCW	0.55	20	20	10	80
DP2609C	SMD (Circulator)	7100-8500	Φ5.0	CW	0.45	20	20	10	80
DP2610C	SMD (Circulator)	7100-8500	Φ5.0	CCW	0.55	20	20	10	80
DP3037C	SMD (Circulator)	6425-6825	Φ5	CW	0.5	20	20	5	50
DP3038C	SMD (Circulator)	6425-6825	Φ5	CCW	0.5	20	20	5	50
DP3039C	SMD (Circulator)	6425-7125	Φ5	CW	0.6	20	20	5	50
DP3040C	SMD (Circulator)	6425-7125	Φ5	CCW	0.6	20	20	5	50
DP3041C	SMD (Circulator)	5900-8400	Φ7.0	CW	0.5	19	19	2	20
DP3042C	SMD (Circulator)	5900-8400	Φ7.0	CCW	0.5	19	19	2	20
DP3043C	SMD (Circulator)	10700-15300	Φ7.0	CW	0.5	19	19	2	20
DP3044C	SMD (Circulator)	10700-15300	Φ7.0	CCW	0.5	19	19	2	20

Pre-U6G

- The PNs which could cover 6000MHz ~ 15000MHz with ϕ12.5mm, ϕ10mm designs.

Part Number	Product Type	Frequency Band (MHz)	Size (mm)	Direction	Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Forward Power (W)	Peak Power (W)
DP0709S	Drop-IN (Isolator)	10200-10800	7*19.5	CW	0.3	23	21	20	60
DP0710S	Drop-IN (Isolator)	10200-10800	7*19.5	CCW	0.3	23	21	20	60
DP2555C	SMD (Circulator)	10700-15350	Φ12.5	CW	0.25	20	21	30	150
DP2556C	SMD (Circulator)	10700-15350	Φ12.5	CCW	0.25	20	21	30	150
DP2635S	SMD (Isolator)	10675-11705	Φ13.9	CW	0.3	18	18	20	200
DP2636S	SMD (Isolator)	10675-11705	Φ13.9	CCW	0.3	18	18	20	200
DP2733C	SMD (Circulator)	10700-15350	Φ12.5	CW	0.5/0.7	18/16	17.7/16.5	30	150
DP2734C	SMD (Circulator)	10700-15350	Φ12.5	CCW	0.5/0.7	18/16	17.7/16.5	30	150
DP2735C	SMD (Circulator)	10700-15350	Φ10.2	CW	0.5/0.7	18/16	17.7/16.5	30	150
DP2736C	SMD (Circulator)	10700-15350	Φ10.2	CCW	0.5/0.7	18/16	17.7/16.5	30	150
DP2737C	SMD (Circulator)	8700-10500	Φ12.5	CW	0.5/0.7	20/18	19/17.7	30	150
DP2738C	SMD (Circulator)	8700-10500	Φ12.5	CCW	0.5/0.7	20/18	19/17.7	30	150
DP2739C	SMD (Circulator)	8700-10500	Φ10.2	CW	0.5/0.7	20/18	19/17.7	30	150
DP2740C	SMD (Circulator)	8700-10500	Φ10.2	CCW	0.5/0.7	20/18	19/17.7	30	150
DP2741C	SMD (Circulator)	10500-13500	Φ12.5	CW	0.5/0.7	20/18	19/17.7	30	150
DP2742C	SMD (Circulator)	10500-13500	Φ12.5	CCW	0.5/0.7	20/18	19/17.7	30	150

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