

PANCHIP PRODUCT SELECTION GUIDE

Sub-1G series

ChirpIoT™ Modulation

Part Number	Frequency band(MHz)	Sensitivity (dBm)	Output power (Max dBm)	Bandwidth(kHz)	Spreading Factor	Data rate (kbps)	Deepsleep mode current(nA)	Receiving current(mA)	Transmitting current(mA)	Operating voltage(V)	Package	MOQ
PAN3028AX	370 ~590 740-1180	-140@62.5kHz	22	62.5/125/250/500	7~12	0.08 ~ 20.4	400	12.5@DC	135@22dBm	1.8~3.6(Normal) 2~3.6(DCDC mode)	QFN32	4000
PAN3031AX	370 ~590 740-1180	-128@125kHz	22	125/250/500	7~9	1.04 ~ 20.4	400	12.5@DC	135@22dBm	1.8~3.6(Normal) 2~3.6(DCDC mode)	QFN32	4000
PAN3029U0GA	408~550 816~1110	-143@62.5kHz	21	62.5/125/250/500	5~12	0.08 ~ 59.9	260	4.1@DC	96@20dBm	1.8~3.6(Normal) 2~3.6(DCDC mode)	QFN28	6000
PAN3060U0GA	408~550 816~1110	-129@125kHz	21	125/250/500	5~9	0.5 ~ 59.9	260	4.1@DC	96@20dBm	1.8~3.6(Normal) 2~3.6(DCDC mode)	QFN28	6000
PAN3740UA3A	408~550 816~1110	-143@62.5kHz	20	62.5/125/250/500	5~12	0.08 ~ 59.9	260	4.1@DCDC	96@20dBm	2~3.6(DCDC mode)	QFN48	3000

GFSK Modulation

Part Number	Frequency band(MHz)	Sensitivity (dBm)	Output power (Max dBm)	Data rate(kbps)	Deepsleep mode current(nA)	Receiving current(mA)	Transmitting current(mA)	Operating voltage(V)	Package	MOQ
PAN3020BV	315~915	-112@40kbps	20	40/80/200/400	2000	18	20@1dBm, 85@20dBm	2.2~3.3	SOP16	5000
PAN3020BL	315~915	-112@40kbps	20	40/80/200/400	2000	18	20@1dBm, 85@20dBm	2.2~3.3	QFN20(4*4)	3000

ASK Modulation

Part Number	Type	Carrier frequency (kHz)	Wake-up sensitivity(uVRMS)	Channels	Encode	Current consumption in listening mode(uA)	False wake-up counter	Wake-up modes	Operating voltage(V)	Package	MOQ
PAN3501	RX	15~150	80	3	Manchester	2.3	√	Frequency detection Pattern recognition Location recognition	2.5~3.6	TSSOP16	4000

Multiprotocol series

PAN102 series, Bluetooth® LE 4.2, SIG MESH, 2.4G mode

Part Number	Package	Flash(KBytes)	RAM(KBytes)	Sensitivity(dBm)	Output power (Max dBm)	Digital I/O	Peripheral	Receiving current(mA)	Transmitting current(mA)	Operating voltage(V)	Operating temperature	MOQ
PAN1020DX	QFN32	256	16	-90@1Mbps	13	25	I2C*2,SPI*3,UART*2, PWM*8	16	17@0dBm	2.2~3.6	-40 ~ 85℃	3000

PAN108 series, Bluetooth® LE 5.3, SIG MESH, 2.4G mode, Sports health protocol, 2 Master 3 Slave

Part Number	Package	Flash(Bytes)	RAM(KBytes)	Sensitivity(dBm)	Output power (Max dBm)	Digital I/O	Peripheral	Receiving current(mA)	Transmitting current(mA)	Operating voltage(V)	Operating temperature	MOQ
PAN1080LA5A	LQFP64	512K	64	-96@1Mbps	7	48	I2C*1,SPI*2,UART*2,PWM* 24,ADC*8,USB2.0*1	5.6(DCDC)	6.1@0dBm (DCDC)	1.8~3.7	-40 ~ 85℃	2500
PAN1080LB5A	LQFP64	1M	64	-96@1Mbps	7	48	I2C*1,SPI*2,UART*2,PWM* 24,ADC*8,USB2.0*1	5.6(DCDC)	6.1@0dBm (DCDC)	1.8~3.7	-40 ~ 85℃	2500
PAN1080UA3C	QFN48	512K	64	-96@1Mbps	7	37	I2C*1,SPI*2,UART*2,PWM* 10,ADC*7,USB2.0*1	5.6(DCDC)	6.1@0dBm (DCDC)	1.8~3.7	-40 ~ 105℃	3000
PAN1080UB1A	QFN32	1M	64	-96@1Mbps	7	21	I2C*1,SPI*2,UART*2,PWM* 10,ADC*6,USB2.0*1	5.6(DCDC)	6.1@0dBm (DCDC)	1.8~3.7	-40 ~ 85℃	3000
PAN1081UB1A	QFN32	1M	64	-96@1Mbps	7	21	I2C*1,SPI*2,UART*2,PWM* 10,ADC*6,USB2.0*1	5.6(DCDC)	6.1@0dBm (DCDC)	1.8~3.7	-40 ~ 85℃	3000
PAN1082UA1C	QFN32(5x5)	512K	64	-96@1Mbps	7	21	I2C*1,SPI*2,UART*2,PWM* 10,ADC*6,USB2.0*1	5.6(DCDC)	6.1@0dBm (DCDC)	1.8~3.7	-40 ~ 105℃	3000
PAN1083UA1C	QFN32(4x4)	512K	64	-96@1Mbps	7	21	I2C*1,SPI*2,UART*2,PWM* 10,ADC*6,USB2.0*1	5.6(DCDC)	6.1@0dBm (DCDC)	1.8~3.7	-40 ~ 105℃	3000

PAN107 series, Bluetooth® LE 5.3, SIG MESH, 2.4G mode, 2 Master 3 Slave

Part Number	Package	Flash(Bytes)	RAM(KBytes)	Sensitivity(dBm)	Output power (Max dBm)	Digital I/O	Peripheral	Receiving current(mA)	Transmitting current(mA)	Operating voltage(V)	Operating temperature	MOQ
PAN1070UA1A	QFN32	512K	48	-96@1Mbps	9	21	I2C*1,SPI*2,UART*2,PWM* 8,ADC*7,USB2.0*1	2.5(DCDC)	5.06@0dBm (DCDC)	1.8~3.6	-40 ~ 85℃	3000
PAN1070UA1C	QFN32	512K	48	-96@1Mbps	9	21	I2C*1,SPI*2,UART*2,PWM* 8,ADC*7,USB2.0*1	2.5(DCDC)	5.06@0dBm (DCDC)	1.8~3.6	-40 ~ 105℃	3000
PAN1070UAEC	QFN20	512K	48	-96@1Mbps	9	8	I2C*1,SPI*2,UART*2,PWM* 6,ADC*2,USB2.0*1	2.5(DCDC)	5.06@0dBm (DCDC)	1.8~3.6	-40 ~ 105℃	3000

PAN101 series, Bluetooth® LE 5.3, 2.4G mode

Part Number	Package	Flash(Bytes)	RAM(KBytes)	Sensitivity(dBm)	Output power (Max dBm)	Digital I/O	Peripheral	Receiving current(mA)	Transmitting current(mA)	Operating voltage(V)	Operating temperature	MOQ
PAN1010S9FA	SSOP24	256K	16	-95@1Mbps	8.5	12	I2C*1,SPI*2,UART*2,PWM* 8,ADC*4,USB2.0*1	2.5(DCDC)	5.06@0dBm (DCDC)	1.8~3.6	-40 ~ 85℃	10000

BLE-Lite series

2.4G T/RX

XN297L series

Part Number	Modulation	Frequency band(GHz)	Sensitivity (dBm)	Output power (Max dBm)	Peripheral	Data rate(bps)	Receiving current(mA)	Transmitting current(mA)	Operating voltage(V)	Package	MOQ
XN297LBW	GFSK	2.400~2.483	-87@1Mbps, -91@250kbps	11	SPI	2M,1M,250k	15.5	19@2dBm	2.3~3.3	SOP8	3000
XN297LCW	GFSK	2.400~2.483	-87@1Mbps, -91@250kbps	11	SPI	2M,1M,250k	15.5	19@2dBm	2.3~3.3	SOP8	3000
XN297LCU	GFSK	2.400~2.483	-87@1Mbps, -91@250kbps	11	SPI	2M,1M,250k	15.5	19@2dBm	2.3~3.3	QFN20(3*3)	3000

PAN1026 series

Part Number	Modulation	Frequency band(GHz)	Sensitivity (dBm)	Output power (Max dBm)	Peripheral	Data rate(bps)	Receiving current(mA)	Transmitting current(mA)	Operating voltage(V)	Package	MOQ
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PAN1026MPDW	GFSK	2.400~2.483	-88@1Mbps	10	SPI/IIC	2M,1M	20	25@0dBm	2.2~3.6	SOP8	4000
PAN1026MPDQ	GFSK	2.400~2.483	-88@1Mbps	10	SPI/IIC	2M,1M	20	25@0dBm	2.2~3.6	QFN16(3*3)	3000
PAN211 series											
Part Number	Modulation	Frequency band(GHz)	Sensitivity (dBm)	Output power (Max dBm)	Peripheral	Data rate(bps)	Receiving current(mA)	Transmitting current(mA)	Operating voltage(V)	Package	MOQ
PAN2110POAA	GFSK	2.400~2.483	-96@1Mbps	7	SPI/IIC	2M,1M,500k,250k,125k,31.25k	7	11@0dBm	1.8~3.6	SOP8	10000
PAN2110U0EA	GFSK	2.400~2.483	-96@1Mbps	7	SPI/IIC	2M,1M,500k,250k,125k,31.25k	7	11@0dBm	1.8~3.6	QFN20(4*4)	3000
2.4G SOC/SIP (8bit MCU)											
Part Number	MCU PN/Type		Memory(Bit)	RAM (Bytes)	Digital I/O	Peripheral		ADC	RF PN	Package	MOQ
XNS102	PMS154C/PIC		2K*16 OTP	128	9	PWM*5		/	XN297L	SOP16	10000
XNS1042	PMS132/PIC		2K*16 OTP	128	9	PWM*2		6CH 12bit	XN297L	SOP16	10000
PAN125	HS16F3211/PIC		2K*14 Flash	128	10	PWM*6		/	XN297L	SOP16	10000
PAN184	PFS122/PIC		2KW MTP	128	10	PWM*2		8CH 12bit	XN297L	SOP16	10000
PAN186	PFS123/PIC		3KW MTP	256	10	PWM*5		8CH 8bit	XN297L	SOP16	10000
PAN2416AV	PIC		4K*16 OTP	176	10	PWM*2		5CH 12bit	/	SOP16	10000
PAN2416AF	PIC		4K*16 OTP	176	8	/		/	/	SOP14	10000
PAN2010	PIC		4K*16 OTP	176	5	/		/	/	ESSOP10	20000
PAN2013CF	PIC		4K*16 OTP	176	7	/		/	/	SOP14	10000
PAN2013CAEK	PIC		4K*16 OTP	176	5	/		/	/	ESSOP10	20000
PAN2020	PIC		2K*16 VIA ROM	256	5	/		/	/	ESSOP10	20000
PAN309	TM52F1376		16K Flash	512	18	I2C*1,UART*2,PWM*3		7CH 12bit	PN298	SSOP24	10000
PAN2210RWBA	PIC		2K*16 OTP	128	5	UART*1,PWM*5		/	/	ESSOP10	20000
PAN2210PWCA	PIC		2K*16 OTP	128	9	UART*1,PWM*5		/	/	SOP14	10000
PAN2211RWBA	PIC		2K*16 OTP	128	5	UART*1,PWM*5		/	/	ESSOP10	20000
PAN2211PWCA	PIC		2K*16 OTP	128	9	UART*1,PWM*5		/	/	SOP14	10000
PAN2213RWBA	PIC		2K*16 OTP	128	5	UART*1,PWM*5		/	/	ESSOP10	20000
PAN2213PWCA	PIC		2K*16 OTP	128	9	UART*1,PWM*5		/	/	SOP14	10000
PAN2628T6EA	8051		32KB FLASH	2K	15	I2C*1,SPI*1,UART*1,PWM*6,USB*1		8CH 12bit	/	TSSOP20	4000
PAN2628U6EA	8051		32KB FLASH	2K	15	I2C*1,SPI*1,UART*1,PWM*6,USB*1		8CH 12bit	/	QFN20	3000
PAN2628M6BA	8051		32KB FLASH	2K	4	UART*1,PWM*3,USB*1		8CH 12bit	/	MSOP10	6000
PAN7022RVBA	PMS150G/PIC		1K*16 OTP	64	4	PWM*1		/	PN298	ESSOP10	20000
PAN7030PVDA	PMS152/PIC		1.25K*16 OTP	80	10	PWM*1		/	PN298	SOP16	10000
PAN7030RVBA	PMS152/PIC		1.25K*16 OTP	80	5	PWM*1		/	PN298	ESSOP10	20000
2.4G SOC/SIP (32bit MCU)											
Part Number	MCU PN/Type		Flash(KBytes)	RAM (KBytes)	Digital I/O	Peripheral		ADC	RF PN	Package	MOQ
PAN2025B50X	32-bit		32	4	22	I2C*1,SPI*1,UART*4,PWM*8		7CH 12bit	/	QFN32	4900
PAN2025B50Y	32-bit		32	4	24	I2C*1,SPI*1,UART*4,PWM*8		8CH 12bit	/	QFN40	4900
PAN2025D50X	32-bit		32	4	22	I2C*1,SPI*1,UART*4,PWM*8		7CH 12bit	/	QFN32	4900
PAN2025D50Y	32-bit		32	4	24	I2C*1,SPI*1,UART*4,PWM*8		8CH 12bit	/	QFN40	4900
PAN308	32-bit		64	4	15	I2C*1,SPI*1,UART*2,PWM*10		7CH 12bit	PN298	SSOP24	10000
PAN7320P4DA	32-bit		24	3	10	I2C*1,SPI*1,UART*1,PWM*5		5CH 12bit	XN297L	SOP16	10000
PAN7330P4DA	32-bit		24	3	10	I2C*1,SPI*1,UART*1,PWM*5		5CH 12bit	PN298	SOP16	10000
PAN7330S4FA	32-bit		24	3	15	I2C*1,SPI*1,UART*1,PWM*6		7CH 12bit	PN298	SSOP24	10000