



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)	RX current(mA)	TX 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@DCDC	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@DCDC	135@22dBm	1.8-3.6(Normal) 2-3.6(DCDC mode)	QFN32	4000
PAN3029U0GA	136-180 204-270 272-360 408-540 816-1080	-143@62.5kHz	20	62.5/125/250/500	5-12	0.08 ~ 59.9	260	4.1@DCDC	96@20dBm	1.8-3.6(Normal) 2-3.6(DCDC mode)	QFN28	4000
PAN3060U0GA	136-180 204-270 272-360 408-540 816-1080	-129@125kHz	20	125/250/500	5-9	0.5 ~ 59.9	260	4.1@DCDC	96@20dBm	1.8-3.6(Normal) 2-3.6(DCDC mode)	QFN28	4000
PAN3740UA3A	136-180 204-270 272-360 408-540 816-1080	-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)	RX current(mA)	TX current(mA)	Operating voltage(V)	Package	MOQ
PAN3110U0DA (TX only)	127-183 190-367 380-550 760-1100	-	21	2 ~ 500	300	-	79.4@20dBm	1.8-3.8	QFN16(3*3)	3000
PAN3111U0DA (RX only)	127-183 190-367 380-550 760-1100	-124@2.4kbps	-	2 ~ 500	300	9.6	-	1.8-3.8	QFN16(3*3)	3000
PAN3120U0FA	127-183 190-367 380-550 760-1100	-124@2.4kbps	21	2 ~ 500	300	5.8@DCDC	25.1@13dBm @DCDC	1.8-3.8(LDO mode) 2-3.8(DCDC mode)	QFN24	3000
PAN3123U0FA	127-183 190-367 380-550 760-1100	-124@2.4kbps	21	2kbps ~ 2Mbps	300	5.8@DCDC	25.1@13dBm @DCDC	1.8-3.8(LDO mode) 2-3.8(DCDC mode)	QFN24(4*4)	3000
PAN3125U0FA	127-183 190-367 380-550 760-1100	-124@2.4kbps	21	2kbps ~ 4Mbps	300	5.8@DCDC	25.1@13dBm @DCDC	1.8-3.8(LDO mode) 2-3.8(DCDC mode)	QFN24(4*4)	3000
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	2.5-3.6	TSSOP16	4000

Multiprotocol series

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	RX current(mA)	TX 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°C	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°C	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°C	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°C	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°C	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°C	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	RX current(mA)	TX 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°C	3000
PAN1070UA2A	QFN40	512K	48	-96@1Mbps	9	26	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°C	4900
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°C	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	RX current(mA)	TX 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°C	10000
PAN1010M9BA	MSOP10	256K	16	-95@1Mbps	8.5	4	I2C*1,SPI*2,UART*2,PWM*2,USB2.0*1	2.5(DCDC)	5.06@0dBm (DCDC)	1.8~3.6	-40~85°C	6000
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)	RX current(mA)	TX 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	
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)	RX current(mA)	TX current(mA)	Operating voltage(V)	Package	MOQ	
PAN1026MPDW	GFSK	2.400~2.483	-88@1Mbps	10	SPI/IIC	2M,1M,250k	20	25@0dBm	2.2~3.6	SOP8	4000	
PAN1026MPDQ	GFSK	2.400~2.483	-88@1Mbps	10	SPI/IIC	2M,1M,250k	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)	RX current(mA)	TX current(mA)	Operating voltage(V)	Package	MOQ	
PAN2110P0AA	GFSK	2.400~2.483	-95@1Mbps	9	SPI/IIC	2M,1M,500k,250k,125k,31.25k	7	10.5@0dBm	1.8~3.6	SOP8	10000	
PAN2110Z0AA	GFSK	2.400~2.483	-95@1Mbps	9	SPI/IIC	2M,1M,500k,250k,125k,31.25k	7	10.5@0dBm	1.8~3.6	SOT23-8	10000	
PAN216 series												
Part Number	Modulation	Frequency band(GHz)	Sensitivity (dBm)	Output power (Max dBm)	Peripheral	Data rate(bps)	RX current(mA)	TX current(mA)	Operating voltage(V)	Package	MOQ	
PAN2160UEA	GFSK	2.400~2.483	-95@1Mbps	9.5	SPI/IIC	2M,1M,500k,250k,125k,31.25k	7	10.5@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			
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			
PAN2020	PIC	2K*16 VIA ROM	256	5	/	/	/	ESSOP10	20000			
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			
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			
PAN7050RVBA	PMS150G/PIC	1K*16 OTP	64	4	PWM*1	/	PAN2110	ESSOP10	20000			
PAN7151PWDA	PMS120/PIC	2KW OTP	128	10	PWM*2	8CH 12bit	PAN2110	SOP16	10000			
PAN7250PWDA	PFS122/PIC	2KW MTP	128	10	PWM*2	8CH 12bit	PAN2110	SOP16	10000			
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			
PAN2710M5BA	32位	16KB OTP	3	4	I2C*1,SPI*1,UART*2,PWM*3,USB*1	3CH 12bit	/	MSOP10	6000			

PAN2711P5DA	32位	16KB OTP	3	11	I2C*1,SPI*1,UART*2,PWM*6	10CH 12bit	/	SOP16	10000
PAN2713M5BA	32位	16KB OTP 2K bits EEPROM	3	4	I2C*1,SPI*1,UART*2,PWM*3,USB*1	3CH 12bit	/	MSOP10	6000
PAN7350S4FA	32 bit	24	3	18	I2C*1,SPI*1,UART*1,PWM*5	8CH 12bit	PAN2110	SSOP24	10000
PAN7420S7FA	32 bit	64	8	18	I2C*1,SPI*1,UART*2,PWM*14	7CH 12bit	PN298	SSOP24	10000
PAN7421S7FA	32 bit	64	8	18	I2C*1,SPI*1,UART*2,PWM*14	7CH 12bit	PN298	SSOP24	10000
PAN7431S7FA	32 bit	64	8	18	I2C*1,SPI*2,UART*2,PWM*14	7CH 12bit	PAN2110	SSOP24	10000
PAN7431U71A	32 bit	64	8	25	I2C*1,SPI*2,UART*2,PWM*14	8CH 12bit	PAN2110	QFN32	3000



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