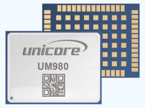
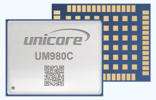
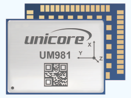
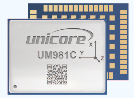
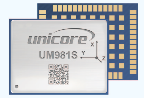
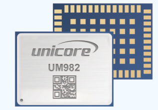
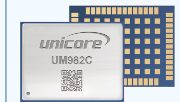
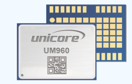
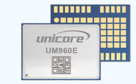
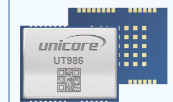
和芯星云 NebulasIV 系列产品选型表

	UM980	UM980C	UM981	UM981C	UM981S	UB9A0	UM982	UM982C	UM960	UM960E	UT986	UM680P
												
	BDS/GPS/GLONASS /Galileo/QZSS 全系统全频高精度 RTK定位模块	BDS/GPS/GLONASS /Galileo/QZSS 全系统全频高精度 RTK定位星基增强模块	BDS/GPS/GLONASS /Galileo/QZSS 全系统全频RTK/ INS组合定位模块	BDS/GPS/GLONASS /Galileo/QZSS全系统 全频 RTK/INS 组合 定位星基增强模块	BDS/GPS/GLONASS /Galileo/QZSS 全系统全频RTK/INS 组合定位模块	全系统全频高精度板卡	BDS/GPS/GLONASS /Galileo/QZSS全系统全频 高精度定位定向模块	BDS/GPS/ GLONASS /Galileo/QZSS全系统 多频双天线高精度RTK 定位定向星基增强模块	BDS/GPS/GLONASS /Galileo/QZSS 全系统 多频高精度RTK定位模块	BDS/GPS/GLONASS /Galileo/QZSS 全系统 多频高精度RTK定位模块	GNSS全系统多频 高精度授时模块	车规级多系统多频 高精度定位模块
认证	RoHS, REACH, CE, FCC, IC, RED		RoHS, REACH, CE, FCC, IC, RED			RoHS, REACH, CE,FCC, IC, RED	RoHS, REACH, CE, FCC, IC, RED		RoHS, REACH, CE, FCC, IC, RED, POPS, TSCA	RoHS, REACH, CE, FCC, IC, RED, POPS, TSCA	RoHS, REACH, RED	RoHS, REACH, CE, FCC, IC, RED
应用领域	测量测绘、精准农业		精准农业		测量测绘	CORS、地基增强系统、 测量测绘	无人机、精准农业、自主机器		割草机、手持GIS、 表演无人机、机器人	割草机	通讯基站授时、 电力授时、 网络时间同步	智能驾驶
尺寸 封装 重量	17.0 × 22.0 × 2.6 mm 54 pin LGA 1.88 g ± 0.03 g		17.0 × 22.0 × 2.6 mm 54 pin LGA 1.91g ± 0.03g			60.0 × 100.0 × 11.4 mm 40 pin 46.5 g ± 2.5g	16.0 × 21.0 × 2.6 mm 48pin LGA 1.82g ± 0.03 g		12.2 × 16.0 × 2.6 mm 24 pin LGA 1.11g ± 0.03g	12.2 × 16.0 × 2.6 mm 24 pin LGA 1.11g ± 0.03g	17.0 × 22.4 × 2.4 mm 28 pin LCC 1.9 g	17.0 × 22.0 × 2.6 mm 54 pin LGA 2.30g ± 0.05 g
单点定位(RMS)	平面:1.5m 高程:2.5m		平面:1.5m 高程:2.5m			平面:1.5m 高程:2.5m	平面:1.5m 高程:2.5m		平面:1.5m 高程:2.5m	平面:1.5m 高程:2.5m	平面:1.5m 高程:2.5m	平面:1.5m 高程:2.5m
DGPS(RMS)	平面:0.4m 高程:0.8m		平面:0.4m 高程:0.8m			平面:0.4m 高程:0.8m	平面:0.4m 高程:0.8m		平面:0.4m 高程:0.8m	平面:0.4m 高程:0.8m	—	平面:0.4m 高程:0.8m
RTK(RMS)	平面:0.8cm+1ppm 高程:1.5cm+1ppm		平面:0.8cm+1ppm 高程:1.5cm+1ppm			平面:0.8cm+1ppm 高程:1.5cm+1ppm	平面:0.8cm+1ppm 高程:1.5cm+1ppm		平面:0.8cm+1ppm 高程:1.5cm+1ppm	平面:0.8cm+1ppm 高程:1.5cm+1ppm	—	平面:0.8cm+1ppm 高程:1.5cm+1ppm
定向精度(RMS)	—		—			—	0.1° /1 m 基线		—	—	—	—
信号	BDS B1I, B2I, B3I, B1C, B2a, B2b, B3I GPS L1C/A, L1C, L2C, L2P(Y), L5 GLONASS G1, G2, G3 (UM980) GLONASS G1, G2 (UM980C) Galileo E1, E5a, E5b, E6 QZSS L1C/A, L1C/B, L1C, L2C, L5, L6 NAVIC L5 SBAS L1C/A L-Band (UM980C)		BDS B1I, B2I, B3I, B1C, B2a, B2b GPS L1C/A, L1C, L2C, L2P(Y), L5 GLONASS G1, G2, G3 Galileo E1, E5a, E5b, E6 QZSS L1C/A, L1C, L2C, L5, L6 NavIC L5 SBAS L1C/A L-Band (UM981C)			BDS B1I, B2I, B3I, B1C, B2a, B2b GPS L1C/A, L1C, L2C, L2P(Y), L5 GLONASS G1, G2, G3 Galileo E1, E5a, E5b, E6 QZSS L1C/A, L1C, L2C, L5, L6 NavIC L5 SBAS L1 C/A L-Band*	BDS B1I, B2I, B3I,B1C*,B2b* GPS L1C/A, L2C, L2P(Y), L5 GLONASS G1, G2 Galileo E1, E5a, E5b,E6* QZSS L1C/A, L1C/B, L2C, L5, L6* SBAS L1C/A L-Band (UM982C)		BDS B1I, B2I, B3I, B1C, B2a, B2b GPS L1C/A, L2C, L2P(Y), L5 GLONASS G1, G2 Galileo E1, E5a, E5b, E6 QZSS L1C/A, L2C, L5 SBAS L1C/A	BDS B1I, B2I, B3I, B1C, B2a, B2b GPS L1C/A, L2C, L2P(Y), L5 GLONASS G1, G2 Galileo E1, E5a, E5b, E6 QZSS L1C/A, L2C, L5	BDS B1I, B1C, B2a GPS L1C/A, L2C, L5 GLONASS G1 Galileo E1, E5a, E5b QZSS L1C/A, L2C, L5	BDS B1I, B2I, B3I, B1C, B2a, B2b GPS L1C/A, L2C, L5C GLONASS G1, G2 Galileo E1, E5a, E5b, E6* QZSS L1, L2, L5, L6* NAVIC L5 SBAS L1C/A L-Band*
IMU	—		●			—	—		—	—	—	—
双天线	—		—			—	●		—	—	—	—
RTK初始化时间(s)	< 5		< 5			< 5	< 5		< 5	< 5	—	< 5
冷启动时间(s)	<12		<12			< 12	<30		<30	<30	<30	<10
数据更新率(Hz)	50		100Hz (IMU Raw Data) 50 Hz (RTK)			50	20		20	20	1	20 、50 *
输出延时(ms)	<25		<10			< 25	<20		<20	<20	<20	<20
功能接口 串口	3 x LVTTL		3 x LVTTL			1 x RS-232 2 x LVTTL	3 x LVTTL		3 x LVTTL	3 x LVTTL	2 x LVTTL	2 x LVTTL
功能接口 网口(10/20 M)	—		—			1	—		—	—	—	—
功能接口 1PPS	1		1			1	1		1	1	1	1
功能接口 外部时钟	—		—			1	—		—	—	1	1
页码	11	12	13	14	15	19	09	10	16	17	18	20

● 为支持；— 为不支持；* 为可选配置

和芯火鸟 UFirebird 系列产品选型表

	型号	规格		尺寸	系统								单频	双频	接口					功能						页码
		工规级	车规级		BDS	GPS	GLONASS	Galileo	NavIC	QZSS	SBAS				UART1	UART2	UART3	SPI	I^2C	内置 flash	数据更新率	DR	AGNSS	精密授时	RTK	
UFirebird IV 系列																										
芯片类	UC7510A		●	4.0 X 4.0 X 0.75 mm	●	●	●	●		●	●		●		●			○	●	●	1Hz/5Hz/10Hz		●			24
芯片类	UC7510I	●		4.0 X 4.0 X 0.75 mm	●	●	●	●		●	●		●		●			○	●	●	1Hz/5Hz/10Hz		●			24
模块类	UM761	●		12.2 × 16.0 × 2.4 mm	●	●	●	●		●	●		●		●					●	1Hz/5Hz/10Hz	●	●			25
模块类	UM761A		●	12.2× 16.0 × 2.4 mm	●	●	●	●		●	●		●		●					●	1Hz/5Hz/10Hz	●	●			26
模块类	UM760	●		12.2 × 16.0 × 2.4 mm	●	●	●	●		●	●		●		●			○	●	●	1Hz/5Hz/10Hz		●			27
模块类	UM760A		●	12.2 × 16.0 × 2.4 mm	●	●	●	●		●	●		●		●			○	●	●	1Hz/5Hz/10Hz		●			28
UFirebird II 系列																										
芯片类	UC6580A		●	5.0 X 5.0 X 0.85 mm	●	●	●	●	○	●	○			●	●	●		○	●	●	1Hz/5Hz/10Hz		●			29
芯片类	UC6580I	●		5.0 X 5.0 X 0.85 mm	●	●	●	●	○	●	○			●	●	●		○	●	●	1Hz/5Hz/10Hz		●			29
	UM680	●		22.0 × 17.0 × 2.6 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz		●		●	31
	UM680A		●	22.0 × 17.0 × 2.6 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz		●		●	32
	UM681	●		22.0 × 17.0 × 2.6 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz	●	●		●	33
	UM681A		●	22.0 × 17.0 × 2.6 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz	●	●		●	34
	UM670A		●	22.0 × 17.0 × 2.6 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz		●			35
	UM671A		●	22.0 × 17.0 × 2.6 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz	●	●			36
	UM620A		●	12.2× 16.0 × 2.4 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz		●			37
	UM620	●		12.2× 16.0 × 2.4 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz		●			38
	UM621A		●	12.2 × 16.0 × 2.4 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz	●	●			39
	UM621	●		12.2 × 16.0 × 2.4 mm	●	●	●	●	○	●	●			●	●	●		○	○	●	1Hz/5Hz/10Hz	●	●			40
UFirebird 系列																										
芯片类	UC6226NAS		●	5.0 X 5.0 X 0.75 mm	●	●	○	●		●			●		●	●				●	1Hz		●			41
芯片类	UC6226NIS	●		5.0 X 5.0 X 0.75 mm	●	●	○	●		●			●		●	●				●	1Hz		●			41
模块类	UM220-INS NL	●		12.2 × 16.0 × 2.6 mm	●	●	○	●		●			●		●	●				●	1Hz/5Hz/10Hz	●	●			42
模块类	UM220-INS NF		●	12.2 × 16.0 × 2.6 mm	●	●	○	●		●			●		●	●				●	1Hz/5Hz/10Hz	●	●			43
模块类	UM220-IV NV		●	12.2 × 16.0 × 2.4 mm	●	●	○	●		●			●		●	●				●	1Hz/5Hz		●			44
模块类	UM220-IV NL	●		12.2 × 16.0 × 2.4 mm	●	●	○	●		●			●		●	●				●	1Hz		●			45
模块类	UM220-IV M0	●		9.7 × 10.1 × 1.9 mm	●	●	○	●		●			●		●					●	1Hz		●			46
模块类	UM220-IV NK	●		12.2 × 16.0 × 2.4 mm	●	●		●		●			●		●	●				●	1Hz		●		●	47
模块类	UM220-IV L	●		17.0 × 22.4 × 2.4 mm	●	●	●	●					●		●	●				●	1Hz		●	●		48

●：支持；○：固件升级或发送指令配置