RTK GNSS
February 2020

		STONEX	Leica Geosystems	Trimble	TOPCON	SOKKIA	SPECTRA PRECISION	GEOMAX	CHCNAV	HI-TARGET	KOLIDA	SANDING	RUIDE	SOUTH	septentrio
MODEL		**New S900A**	**VIVA GS18 T**	**R12**	**HiPer VR**	**GRX3**	**SP 85**	**Zenith40**	**i90 Pro**	**iRTK 5 new**	**K5 IMU**	**T66 pro**	**R6p Pulsar**	**GALAXY G6**	**Altus NR3**
CHANNELS		800	555	672	226	226	600	555	336	336	440 or 555	336	336	336	488
BOARD		P40	NOV OEM719	TRI BD982	TOP Vangard	TOP Vangard	TRI	NOV OEM719	TRI BD990	TRI BD990		TRI BD990	TRI BD990	TRI BD990	SEP
SIGNALS TRACKING	**GPS**	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5	L1/L2/L5
	GLONASS	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3	L1/L2/L3
	BEIDOU	B1/B2/B3	B1/B2/B3	B1/B2/B3	B1/B2	B1/B2	B1/B2	B1/B2/B3	B1/B2/B3	B1/B2/B3	B1/B2/B3	B1/B2/B3	B1/B2/B3	B1/B2/B3	B1/B2
	GALILEO	E1/E5A/E5B/AltBOC/E6	E1/E5A/E5B/AltBOC/E6	E1/E5A/E5B/AltBOC/E6	E1/E5A/E5B/AltBOC	E1/E5A/E5B/AltBOC	E1/E5A/E5B	E1/E5A/E5B/AltBOC/E6	E1/E5A/E5B/AltBOC/E6	E1/E5A/E5B/AltBOC/E6	E1/E5A/E5B/E5AltBOC	E1/E5A/E5B/AltBOC/E6	E1/E5A/E5B/AltBOC/E6	E1/E5A/E5B/AltBOC/E6	E1/E5A/E5B/AltBOC
	QZSS	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2C/L5	L1/L2/L5
	L-BAND	Atlas	TerraStar	RTX	SkyBridge	SkyBridge	RTX	Terrastar	RTX	RTX	NO	RTX	RTX	RTX	Veripos
	IRNSS	L5	L5	L5	L5	L5	L5	L5	L5	L5	NO	NO	NO	L5	L5
	SBAS	√	√	√	√	√	√	√	√	√	√	√	√	√	√
BRIDGING OF RTK OUTAGES		aRTK	SmartLink fill	xFILL	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
ACCURACY	**Static H**	2.5mm ± 0.1 ppm	3mm ± 0.1 ppm	3mm ± 0.1 ppm	3mm ± 0.4 ppm	3mm ± 0.4 ppm	3mm ± 0.1 ppm	3mm ± 0.1 ppm	2.5mm ± 0.5 ppm	2.5mm ± 0.5 ppm	2.5mm ± 0.5 ppm	2.5mm ± 0.5 ppm	2.5mm ± 0.5 ppm	2.5mm ± 0.5 ppm	3mm ± 0.1 ppm
	Static V	3.5mm ± 0.4 ppm	3.5mm ± 0.4 ppm	3.5mm ± 0.4 ppm	5mm ± 0.5 ppm	5mm ± 0.5 ppm	3.5mm ± 0.4 ppm	3.5mm ± 0.4 ppm	5mm ± 0.5 ppm	5mm ± 0.5 ppm	5mm ± 0.5 ppm	5mm ± 0.5 ppm	5mm ± 0.5 ppm	5mm ± 0.5 ppm	3.5mm ± 0.4 ppm
	RTK H	5mm ± 1 ppm	8mm ± 0.5 ppm	8mm ± 0.5 ppm	5mm ± 0.5 ppm	5mm ± 0.5 ppm	8mm ± 0.5 ppm	8mm ± 1 ppm	8mm ± 1 ppm	8mm ± 1 ppm	8mm ± 1 ppm	8mm ± 1 ppm	8mm ± 1 ppm	8mm ± 1 ppm	6mm ± 0.5 ppm
	RTK V	10mm ± 1 ppm	15mm ± 0.5 ppm	15mm ± 0.5 ppm	15mm ± 1 ppm	15mm ± 1 ppm	15mm ± 0.5 ppm	15mm ± 1 ppm	15mm ± 1 ppm	15mm ± 1 ppm	15mm ± 1 ppm	15mm ± 1 ppm	15mm ± 1 ppm	15mm ± 1 ppm	10mm ± 1 ppm
RATE HZ		10-50	20	20			20	5-20	50	50	50	50	50	50	20
MEMORY		8 Gb	8Gb	6Gb	8Gb	8Gb	4 Gb	8Gb	32Gb	16 Gb	8 Gb	8 Gb	8 Gb	8 Gb	16 Gb
BLUETOOTH		√	√	√	√	√	√	√	√	√	√	√	√	√	√
WiFi		√	NO	√	NO	NO	√	NO	√	√	√	√	√	√	√
WEB USER INTERFACE		√	NO	√	NO	NO	NO	NO	√	√	√	√	√	√	√
OS		Linux	NO	NO	NO	NO	NO	NO	Linux	Linux	Linux	Linux	Linux	Linux	NO
RADIO INTEGRATED 410 - 470 MHz		√	√	√	√	√	√	√	√	√	√	√	√	√	√
RADIO INTEGRATED 902.4 - 928 MHz		√	NO	NO	√	√	NO	NO	NO	NO	NO	NO	NO	NO	NO
GSM INTEGRATED		4G	4G	4G	4G	4G	3G	3G	4G	4G	4G	4G	4G	4G	4G
DISPLAY INTEGRATED		NO	NO	NO	NO	NO	NO	NO	√	√	NO	NO	NO	√	NO
NFC		NO	NO	NO	NO	NO	NO	NO	√	√	√	√	√	√	NO
E-BUBBLE		√	√	√	√	√	√	NO	√	√	√	√	√	√	NO
E-COMPASS		NO	NO	√	NO	NO	NO	NO	NO	√	NO	√	√	√	NO
IMU		√	√	NO	√	√	NO	NO	√	√	√	NO	NO	NO	NO
MAX TILT OPERATION		±60°	±30°	±30°	±15°	±15°	NO	NO	±30°	±30°	±60°	±30°	±30°	±30°	NO
PORT FOR EXTERNAL ANTENNA		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1PPS		NO	NO	√	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
BATTERY CHANGE		√	√	√	NO	NO	√	√	√	√	√	√	√	√	√
OPERATING TIME (HOURS) STD BATTERY		12	6	5	10	10	10	6	8	10	10	10	10	12	6
NR. BATTERY		2	1	1	1	1	2	1	2	1	2	2	2	1	2
HOT SWAP		√	NO	NO	NO	NO	√	NO	√	NO	√	√	√	NO	√
MATERIAL		Magnesium		Magnesium	Magnesium	Magnesium	Plastic	Polimeri	Magnesium	Magnesium	Magnesium	Magnesium	Magnesium	Magnesium	
WEIGHT		1190g	1200g	1120g	1150g	1150g	1117g	1180g	1260g	1200g	1330 kg	1390 kg	1390 kg	1440g	820g
IP		67	66/68	67	67	67	67	68	67	67	67	67	67	67	67
MIL		√	√	√	NO	NO	NO	√	NO	NO	NO	NO	NO	NO	NO
OPERATING TEMPERATURE		- 40° + 65°	- 40° + 65°	- 40° + 65°	- 40° + 70°	- 40° + 70°	- 40° + 65°	- 40° + 65°	- 40° + 65°	- 40° + 65°	- 45° + 65°	- 40° + 70°	- 40° + 80°	- 45° + 60°	- 30° + 75°
CONTROLLER	**Win Mobile**	S4II	CS20	NO	FC-500 TESLA	S-10 TESLA	Ranger 3	ZeniusS	NO	NO	X11 Pro	X11 Pro	X11 Pro	X11 Pro	Juniper Allegro 2 Juniper Archer 2
	Win 10	UT20	CS35	TSC7 T7 T10	FC-5000	SHC-5000	Ranger 7 ST10	NO	NO	NO	NO	NO	NO	NO	Juniper Mesa 2
	Android	UT10 UT30 S40	NO	NO	NO	NO	T41	ZeniusX Zenius800	HCE320 LT700	iHand30	H3Plus N80	X3Plus H5	H3Plus N80	H3Plus N80	NO
SOFTWARE	**Win Mobile**	FieldGenius SurvCE	Captivate	NO	Magnet	GeoPro Field	Survey Pro Fast Survey	X-PAD FieldGenius SurvCE	NO	FieldGenius SurvCE	FieldGenius	FieldGenius	FieldGenius	FieldGenius	SurvCE
	Win 10	FieldGenius SurvCE	Captivate	ACCESS	Magnet	GeoPro Field	Survey Pro	FieldGenius SurvCE	NO	NO	NO	NO	NO	NO	SurvPC
	Android	Cube-a FieldGenius	NO	NO	NO	GeoPro Field	Survey Mobile	X-PAD	LandStar7	Hi-Survey Road	SurvX	Smart RTK	SurvX	SurvX	NO
SOFTWARE POST PROCESSING		Cube-manager-p	LGO	TBC	Magnet Tools	Magnet Office	SPSO	GGO	CGO2	HGO	STC	SGO	Geo Office	STC	PP-SDK
PRESENTATION		2020	2017	2018	2018	2019	2019	2019	2019	2019	2019	2019	2018	2016	2019

Legend		
		Competitor is worst
		Competitor is better