



GV3

Professional Separates

The GV3 Separates range is designed to provide discerning gpr professionals with a modular adaptable and cost effective approach to their GPR needs.

System Controllers

For those requiring a system equipped with 8 data channels from day one, our GV3_8 model will undoubtedly be the controller of choice, while those with more modest immediate needs may value the flexibility presented by our scalable GV3S controllers. In addition to being available in cost effective 1, 3 and 4 channel variants, each GV3S provides the potential for future system expansion with the option to scale up the number of channels available; to a maximum total of 8, as future business opportunities arise. Whichever GV3 controller is your preferred choice, each comes equipped with:-



High Pulse Repetition Frequency
Ethernet and Wifi connectivity;
External GPS/GNSS port

Independent per Tx Timesweep
Encoder triggering port
Internal Li-ion batteries.

GV3 Antenna options

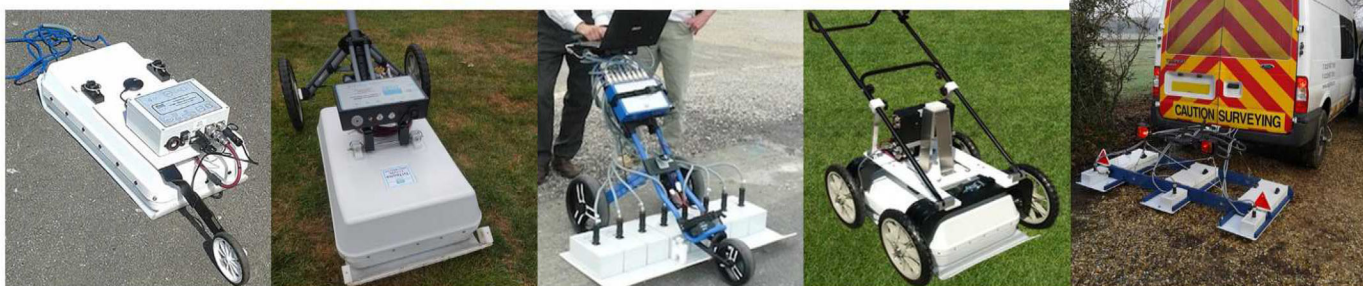
The breadth of antenna options available for use with the GV3 is without doubt one of the widest and most varied available for any professional separates GPR system.

For those undertaking common (fixed) offset surveys, there are 6 single frequency, combined Tx/Rx antenna available, with centre frequencies of 250MHz, 400MHz, 1GHz, 1.5GHz, 4GHz and 6GHz respectively.

Also available in the GV3 combined TX/Rx antenna range is **TriTenna**. This popular, space busting 3 in 1 antenna Combo consists of 3 complimentary frequency antenna (250MHz/500MHz/1GHz) all co-located around a common mid point and mounted inside a single casing. As each frequency antenna occupies its own independent channel, they may be used as individual channels, in any combination of two or, by having all three channels operating together to obtain the full benefit of over 1800MHz of combined bandwidth, spreading between 125MHz & 2GHz.

For those with a need for Automatic Velocity Calibration (AVC), or looking to undertake Common Mid point (CMP), Transillumination or WARR surveys and therefore requiring differing combinations of separable Tx and Rx antennas. We have similar frequencies to those above available, in individual Tx and Rx format. For those working on high accuracy/close tolerance projects, these may also be ordered in units of 4, 6 and 8 as close matched sets.

GV3 data may be processed in a range of software packages including ReflexW, GPR Slice, GPR Soft, Road Doctor, RGPR and Geolitix



Just some of the ways in which GV3 Separates may be deployed

GV3 System Controllers

GV3 Controllers	GV3S-1	GV3S-3	GV3S-4	GV3S-8
Number of Channels Available	1	3	4	8
Scalable Channels option	✓	✓	✓	✗
Computing Device Interface	Ethernet or WiFi			
Max Transmitter Channels (Transmitter Trigger Outputs)	1	3	4	8
Max Pulse Repetition Rate (Single Transmitter running)	2MHz			
Max Pulse Repetition Rate (Max Transmitters running)	2MHz	667KHz	500KHz	250KHz
Max Receivers per Transmitter	1	3	4	4
Available Timesweep (Independent per Transmitter)	10 - 160ns			
Samples per Sweep	256 or 512			
Sampling Interval (read distance)	Continuous (free running) or Encoder Wheel triggered			

GV3 Controllers	GV3S-1	GV3S-3	GV3S-4	GV3S-8
Max Scan Rate (Scans/Second) (Single Channel running)	1600			
Max Scan Rate (Scans/Second) (All Channels running)	1600	533	400	200
Data Width	16 bit			
Internal Power Source	12v Li-ion Battery Pack (4hrs continuous use on full charge)			
Additional Inputs	GPS, Safety plug/Charger/Ext dc 12v			
Length (mm)	290			
Width (mm)	225			
Height (mm)	70			
Weight (kg)	1.8			

GV3 Antenna Options

Combined Tx/Rx Antenna	TRITENNA			CA6000	CA4000	CA1500	CA1000	CA400	CA250
Nominal Centre Frequency	1GHz	500MHz	250MHz	6GHz	4GHz	1.5GHz	1GHz	400MHz	250MHz
Bowtie Antenna	✓	✓	✓	✗	✗	✓	✓	✓	✓
Horn Antenna	✗	✗	✗	✓	✓	✗	✗	✗	✗
Shielded	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nominal Bandwidth (GHz)	1.5	0.6	0.35	7	4	2	1.5	0.45	0.35
Dynamic Range (dB)	114	120	124	107	107	111	114	120	124
Max Depth in Dry Soil (m)	1.5	5	10	0.4	0.5	1	1.5	5	10
Max Resolution (m)	0.02	0.04	0.08	0.005	0.01	0.015	0.02	0.04	0.08
Length (mm)	720			160	160	285	285	590	720
Width (mm)	470			160	160	135	135	300	470
Height (mm)	230			90	90	110	110	140	230
Weight (kg)	9			0.5	0.5	0.6	0.8	4	7

Separable Tx-Rx Antenna	SA1500T	SA1500R	SA1000T	SA1000R	SA400T	SA400R	SA250T	SA250R
Nominal Centre Frequency	1.5GHz	1.5GHz	1GHz	1GHz	400MHz	400MHz	250MHz	250MHz
Bowtie Antenna	✓	✓	✓	✓	✓	✓	✓	✓
Horn Antenna	✗	✗	✗	✗	✗	✗	✗	✗
Shielded	✓	✓	✓	✓	✓	✓	✓	✓
Length (mm)	120	120	120	120	250	250	275	275
Width (mm)	120	120	120	120	250	250	360	360
Height (mm)	80	80	80	80	120	120	150	150
Weight (kg)	0.45	0.45	0.65	0.65	2.4	2.4	4.2	4.2
Values given for the performance characteristics below are approximations based on the use of a single pair of matching Tx & Rx Separates Antenna being similar to that of the equivalent Combined Tx/Rx Antenna.								
Nominal Bandwidth (GHz)	2		1.5		0.45		0.35	
Dynamic Range (dB)	111		114		120		124	
Max Depth in Dry Soil (m)	1		1.5		5		10	
Max Resolution (m)	0.015		0.02		0.04		0.08	



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