

ST8900 ENGINEERING SYSTEMS - SYSTEM BUILDER

1) Choose your Display Option (if required):-

2) Choose your Data Recording Option:-

CONFIGURABLE DISPLAY OPTIONS				
PRODUCTS	ST8900 IDU	ST8910G IDU	ST8950 DS	ST8950T DST
SENSOR INPUTS				
No. Configurable Sensor Inputs	8	7	8	8
Max 0-5Volt Analogue Voltage Inputs	5	4	5	5
Max 0-330 Ohm Resistance Inputs	-	-	5	5
Max. Speed/frequency Inputs	3	3	3	3
Frequency Range for Speed Inputs	0-2kHz	0-2kHz	0-2kHz	0-2kHz
Max inputs with DSP anti-aliasing Filter	2	3	7	7
Max. Thermocouple Inputs	2	3	7	7
Max 0-5Volt Inputs (All types)	7	7	7	7
Lateral G (Internal)	-	✓	-	-
Vertical + Longitudinal G (Internal)	-	ST8966-PIN	-	-
CAN ECU INTERFACE				
Minimum CAN Speed	-	125kbps	-	-
Maximum CAN Speed	-	1Mbps	-	-
Protocols (Bosch, Porsche, J-1939, EFI)	-	✓	-	-
Maximum no. of CAN Channels	-	32	-	-
Vector CANdB File Import	-	Option 1	-	-
DRIVER DISPLAY FEATURES				
Analogue Tachometer Dial	✓	✓	-	-
2 Line, 40 Character LCD Display	✓	✓	✓	✓
Performance Meter Display	ST8999-PIN	ST8999-PIN	ST8999-PIN	ST8999-PIN
Predictive Lap Time Display	ST8999-PIN	ST8999-PIN	ST8999-PIN	ST8999-PIN
Brake Bias Display	ST8999-PIN	ST8999-PIN	ST8999-PIN	ST8999-PIN
No. of Intelligent Alarms	20	30	20	20
No. of Intelligent Alarm Gates	2	10	2	2
Peak Value Recall	✓	✓	✓	✓
Max No. Display Channels	36	36	36	36
TELEMETRY				
RS-232 Telemetry Interface	-	-	-	✓
Maximum Telemetry Speed (Baud rate)	-	-	-	115kBPS
Max Channel Update Rate	-	-	-	4Hz
Radio Modem Compatible	-	-	-	✓
GSM Cellular Modem Compatible	-	-	-	✓
Direct Connection Compatible	-	-	-	✓
GPS INTERFACE				
NMEA RS-232 Interface	-	-	-	-
No of Channels from GPS Receiver	-	-	-	-
Max Update Rate from Receiver	-	-	-	-
PRICES				
SYSTEMS				
Base System	Call	Call	Call	Call
ST8999-PIN Max Display Upgrade Option	Call	Call	Call	Call
ST8966-PIN Enable Internal Long/Vert G sensors	Call	Call	Call	Call
Option 1 - Vector CANdB File Import	-	Call	-	-

DATA RECORDING OPTIONS							
PRODUCTS	ST8903 ER	ST8862 VSR	ST8902 R	ST8906 R+E1	ST8907 R+E1+E2	ST8908 R+E1+E2+E3	WiFi RECORDER WR
DATA RECORDING							
No. of Recording Channels	20	20	45	45	45	45	45
Max Sample Rate (incl. with DSP Filter)	50 Hz	50 Hz	200 Hz	200 Hz	200 Hz	200 Hz	200 Hz
Equivalent Max Unfiltered Sample Rate	250 Hz	250 Hz	1 kHz	1 kHz	1 kHz	1 kHz	1 kHz
Individual sample rate on each channel	✓	✓	✓	✓	✓	✓	✓
No of channels @ max. sampling rate	20	20	20	20	20	20	20
Standard Memory Size	512 KB	512 KB	8 MB	8 MB	8 MB	8 MB	2 MB
Maximum Memory Size	512 KB	512 KB	32 MB	32 MB	32 MB	32 MB	128 MB
DATA DOWNLOAD							
PC Download Port	USB	USB	USB	USB	USB	USB	USB & WiFi
WiFi Compatibility	-	-	-	-	-	-	802.11B/G
Maximum Wireless Download Range	-	-	-	-	-	-	100m / 300ft
Auto-Alarms on downloaded data	-	-	-	-	-	-	ST8199
Multicar WiFi Auto-download Server	-	-	-	-	-	-	Option
SENSOR INPUTS							
No. Configurable Sensor Inputs	8	8	-	8	16	24	10
Max 0-5Volt Analogue Voltage Inputs	5	5	-	8	16	24	7
Max 0-330 Ohm Resistance Inputs	5	-	-	8	16	24	-
Max. Speed/frequency Inputs	8	3	-	8	16	24	3
Frequency Range for Speed Inputs	0-40kHz	0-2kHz	-	0-40kHz	0-40kHz	0-40kHz	0-2kHz
Max inputs with DSP anti-aliasing Filter	8	-	-	8	16	24	3
Max. Thermocouple Inputs	8	-	-	8	16	24	3
Max. Strain Gauge Inputs	8	-	-	8	16	24	-
VIDEO INTERFACE							
Synchronized Video Support	-	ST8960-PIN	-	-	-	-	-
Synchronized Video Compare	-	ST8998-PIN	-	-	-	-	-
Video Data Overlay Support	-	ST8969-PIN	-	-	-	-	-
Performance Meter Display	-	ST8999-PIN	-	-	-	-	-
Predictive Lap Time Display	-	ST8999-PIN	-	-	-	-	-
Max No. Display Channels	-	20	-	-	-	-	-
No. of Intelligent Alarms	-	10	-	-	-	-	-
Peak Value Recall	-	✓	-	-	-	-	-
Auto Camcorder Control (LAN-C)	-	Option	-	-	-	-	-
ANALYSIS SOFTWARE							
DataPro V4	✓	✓	✓	✓	✓	✓	✓
DataPro V5 (for windows Vista)	Call	Call	Call	Call	Call	Call	Call
Rainbow Maps	ST8198	ST8198	ST8198	ST8198	ST8198	ST8198	ST8198
Maths Channels Package	ST8199	ST8199	ST8199	ST8199	ST8199	ST8199	ST8199
PRICES							
Base System Price	Call	Call	Call	Call	Call	Call	Call
Memory Upgrade to 16MB/32MB/64MB	-	-	Call	Call	Call	Call	Call
ST8960-PIN Synchronized Video Option	-	Call	-	-	-	-	-
ST8968-PIN Sync-Video Compare	-	Call	-	-	-	-	-
ST8969-PIN Video Data Overlay Option	-	Call	-	-	-	-	-
ST8967-PIN Sensor Enable Option	-	Call	-	-	-	-	-
ST875 Sensor Interface Harness	-	Call	-	-	-	-	-
ST8999-PIN Max Display Upgrade	-	Call	-	-	-	-	-
ST8198 Rainbow Maps Option	Call	Call	Call	Call	Call	Call	Call
ST8199 Maths Channels Package Option	Call	Call	Call	Call	Call	Call	Call

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3) Choose your CAN ECU Interface Option (if required):-

CAN INTERFACE OPTIONS					
PRODUCTS	ST901171 BOSCH MS3/MS4	ST901187 PORSCHE GT3	ST901200 J-1939	ST901221 EFI EURO6/EUR	UNIVERSAL
CAN ECU/VEHICLE GATEWAY					
Protocol	Bosch	Porsche GT3	J-1939	EFI	Imported
Maximum No. of Channels	46	37	12+	73	128
Vector CANdB File Import	-	-	-	-	✓
Minimum CAN Speed	-	-	-	-	125kbps
Maximum CAN Speed	-	-	-	-	1Mbps
PRICES					
SYSTEMS					
Base System	Call	Call	Call	Call	Call

4) Choose any miscellaneous Options (if required):-

MISCELLANEOUS EXPANSION OPTIONS					
PRODUCTS	ST8961 VS	ST8993 ET	ST8994 EGPS	ST8891 E1	ST8992 E2
SENSOR INPUTS					
No. Configurable Sensor Inputs	8	8	8	8	8
Max 0-5Volt Analogue Voltage Inputs	5	8	8	8	8
Max 0-330 Ohm Resistance Inputs	-	8	8	8	8
Max. Speed/frequency Inputs	3	8	8	8	8
Frequency Range for Speed Inputs	0-2kHz	0-40kHz	0-40kHz	0-40kHz	0-40kHz
Max inputs with DSP anti-aliasing Filter	-	8	8	8	8
Max. Thermocouple Inputs	-	8	8	8	8
Max. Strain Gauge Inputs	-	8	8	8	8
TELEMETRY					
RS-232 Telemetry Interface	-	✓	-	-	-
Maximum Telemetry Speed (Baud rate)	-	115kBPS	-	-	-
Max Channel Update Rate	-	4Hz	-	-	-
Radio Modem Compatible	-	✓	-	-	-
GSM Cellular Modem Compatible	-	✓	-	-	-
Direct Connection Compatible	-	✓	-	-	-
VIDEO INTERFACE					
Synchronized Video Support	ST8960-PIN	-	-	-	-
Synchronized Video Compare	ST8998-PIN	-	-	-	-
Video Data Overlay Support	ST8969-PIN	-	-	-	-
Max No. Display Channels	20	-	-	-	-
No. of Intelligent Alarms	10	-	-	-	-
Peak Value Recall	✓	-	-	-	-
Auto Camcorder Control (LAN-C)	Option	-	-	-	-
GPS INTERFACE					
NMEA RS-232 Interface	-	-	✓	-	-
No of Channels from GPS Receiver	-	-	10	-	-
Max Update Rate from Receiver	-	-	5Hz	-	-
PRICES					
SYSTEMS					
Base System	Call	Call	Call	Call	Call
ST8999-PIN Max Display Upgrade	Call	-	-	-	-
ST8960-PIN Synchronized Video Option	Call	-	-	-	-
ST8968-PIN Sync-Video Compare	Call	-	-	-	-
ST8967-PIN Sensor Enable Option	Call	-	-	-	-
ST8969-PIN Video Data Overlay Option	Call	-	-	-	-
ST995 5Hz GPS Receiver	-	-	Call	-	-

5) Choose the appropriate version of DataPro

DATAPRO V4 FEATURES	
SOFTWARE VERSION	V4
CHARTS/GRAPHS	
Segment, lap & run analysis	✓
Interactive trackmap selection	✓
Distance or time-based	✓
Multiple-channel strips	✓
Multiple-strip charts	✓
X-Y Graphs (inc. overlay/compare)	✓
Compare/overlay laps or runs	✓
Multiple lap overlays	✓
Timeline analysis	✓
Rolling lap time graph	✓
Infinite zoom in & out	✓
Align beacon across runs	✓
Multiple Rainbow Maps with data compare	ST8198
Segment Bar on Strip Charts	✓
Advanced Track Map Calculator	✓
GPS-Based Track Maps	✓
VIDEO	
Synchronized Video Display	✓
Video Compare (time or distance based)	✓
Frame-by-frame navigation (Fwd & Rev)	✓
Data overlay on video	✓
50/60Hz Replay option for improved images	✓
Optimised Video Import & Synchronization Speed	✓
REPORTS	
Run and lap comparison	✓
Statistics for selected data	✓
Split-time reports	✓
Eclectic & rolling lap time	✓
HISTOGRAMS	
Multiple Channel Histograms	✓
Compare/overlay laps or runs of data	✓
Dynamic update from cursor selection of data	✓
MATHS CHANNELS	
Calculated inertial or GPS track maps	✓
Damper Velocities	✓
Pitch, Roll, Ride Height	✓
Braking & Acceleration Forces	✓
Combined G-force, Brake Bias, Gears	✓
Corner radius/driven line	✓
User-defined Maths Channels	ST8199
REAL-TIME TELEMETRY (REQUIRES	
Radio or GSM Cellular Data Link	✓
Multiple Strip Chart Display	✓
Multiple Bar Graphs with Red/Green Alarms	✓
Visual Min/Max Alarms on each channel	✓
Real-Time Statistics Data (Max, Min, Average)	✓
Multiple Display Layouts updated in real-time	✓
Review all data history stored on PC Disk	✓
Data Export to 3rd party software (CSV format)	✓
MISCELLANEOUS	
Lap time editor	✓
Configurable Data Export (CSV, Excel, etc.)	✓
Data archive & restore	✓
Display layout manager	✓
Operation over network	✓
Multicar Support	✓
GPS Data Support	✓
Voice Memo Support (requires hardware option)	✓
Optimised Start Up & data integrity check times	✓
SYSTEM CONFIGURATION	
User-specified channel names	✓
Individual record rate/channel	✓
Configurable LCD display layers	✓
Configurable Video data overlay	✓
Configurable alarms for each channel	✓
Automatic sensor calibration	✓
SYSTEM COMPATIBILITY	
MS Windows XP/2000/ME/98SE	✓
MS Windows Vista	V5 Required
USB Port for data download & Setup	✓
PRICES	
ST8198 Rainbow Maps Package	Call
ST8199 Maths Channels Package	Call
Upgrade to V5 for Windows Vista	Call