

Seica

Test Solutions

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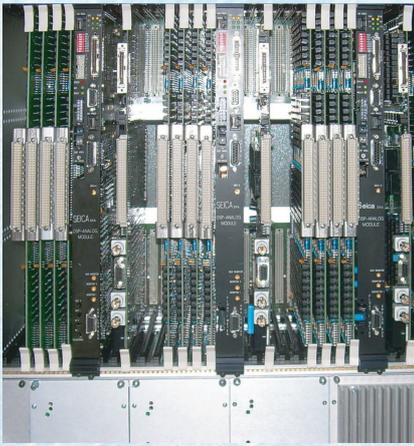
Compact Test System Multimedia



COMPACT MULTIMEDIA

THE SOLUTION FOR HIGH-TECH REQUIREMENTS

The goal of Seica's **Compact Multimedia Test System (MTS)** is to offer a flexible and customizable solution, ready and able to meet the challenges posed by the latest technologies on the market. Based on 30 years of experience in test, Seica decided to define a platform dedicated to the functional testing of multimedia products. Starting from the most common communication buses (RS232, USB, Ethernet) including those specific to the automotive industry (CAN, LIN, Most, Flexray), through to video and audio validation, all the way up to the most complex RF combinational test, the **Compact MTS is designed for the integration of all of the hardware and software resources** necessary to satisfy any requirement.

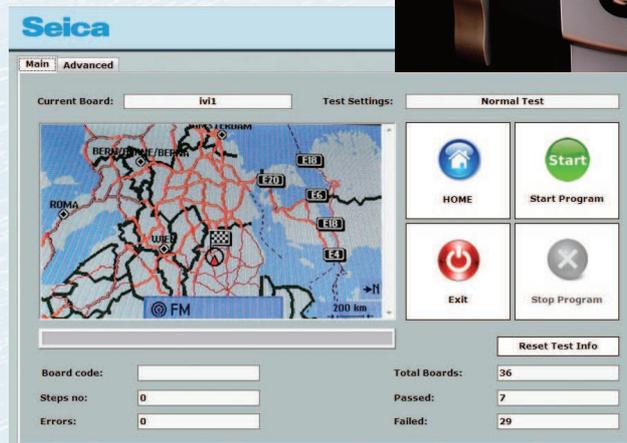


ATE RESOURCES

Like all Seica systems, the **Compact MTS** is based on the Seica VIP platform, a fully integrated combination of advanced technology and simplicity of use, enabling high performance in-circuit/functional test performance. The sophisticated **integrated measurement system** (ACL module), based on DSP technology, is able to execute measurements and conditions, as well as manage signals in a fully automatic mode. The platform includes full **parallel test capability**, an important feature of the **Compact MTS**. The solution implemented by SEICA enables true parallel testing of up to four jobs, running completely simultaneously and independently.

VIDEO ANALYSIS

The list of the video technologies used in the latest consumer electronic devices is constantly increasing: Blu-ray Disc, HD DVD, 1080p, High-Definition Multimedia Interface (HDMI), Digital Visual Interface (DVI), S-Video, LVDS and CVBS standard, just to name a few. The **Compact MTS** integrates the latest solutions to accurately capture the analog signal with **high-resolution digitizers**, while capturing or generating digital video interfaces. The flexibility of the system allows manufacturers to keep up with **new video standards** while meeting **aggressive time-to-market** and price targets.



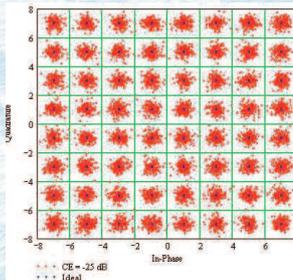
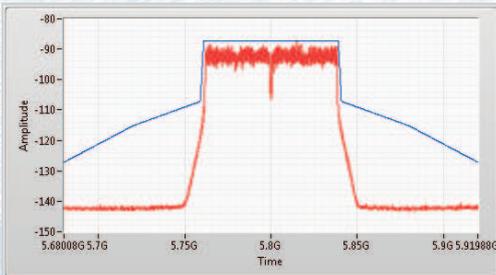
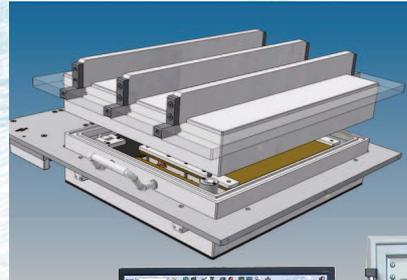
AUDIO SIGNAL VALIDATION

Closely related to video test, audio signal analysis can be performed on the **Compact MTS** using its software to manage both the **integrated Seica instrumentation** as well as any additional **external instruments**. It is possible to generate and measure analog signals like **THD levels**, **signal-to-noise ratio**, etc. or to decode digital audio signals such as S/PDIF or I2S. Parallel acquisition of different audio channels can also be provided to increase test throughput.



RADIO FREQUENCY ANALYSIS

Considering the fact that, today, **RF devices are integrated in a wide range of products**, from wearables to high-definition mobile phones and automotive applications, Seica has designed its automated test system to easily allocate the required instrumentation and the proper handling solution for signal routing and management. Integration of the most advanced instruments is a must, but the design of the shielded fixture solution is also a key differentiator to reach the best performance, thus lowering the cost of testing. BT, Wifi, Cell phones, GPS, RFID, ZigBee validation are now a basic capability of the **Compact MTS**.



COMMUNICATION BUSES

As communications speeds have increased and electronics have expanded into more and more safety-critical areas, there has been a shift in the technology. The flexible hardware and software architecture of the **Compact MTS** provide the most advanced integrated solutions: RS232 serial bus, automotive communications buses such as Lin, CAN (up to 500Kbps), LIN, Electrical and Optical MOST and FlexRay (operating at 10Mbps) reaching the high throughput standards over Ethernet.

Time	Delay	Device	Flags	Identifier	DLC	Data
0,0000	0,0000	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
0,1222	0,1222	CANUSB01	Rx	18EAFFFE	3	00 00 00 00
0,2703	0,1481	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
0,4498	0,1795	CANUSB01	Rx	18EFFF9	8	64 3C 00 00 00 00 00 00
0,5169	0,0671	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
0,5309	0,0140	CANUSB01	Rx	C0000D9	8	03 01 00 00 00 00 03 01
0,5709	0,0400	CANUSB01	Rx	14200067	8	00 00 00 00 00 00 00 00
0,7714	0,2005	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
0,7714	0,0000	CANUSB01	Rx	18EAFF9	3	00 00 00 00
0,7724	0,0010	CANUSB01	Rx	18EFFF9	8	02 00 00 00 00 00 00 00
1,0199	0,2475	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
1,2879	0,2680	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
1,5185	0,2306	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
1,5416	0,0231	CANUSB01	Rx	C0000D9	8	04 01 00 00 00 03 01 00
1,5606	0,0190	CANUSB01	Rx	18EAFFFE	3	00 00 00 00
1,5766	0,0160	CANUSB01	Rx	18EFFF9	8	64 3C 00 00 00 00 00 00
1,7771	0,2005	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
1,7952	0,0181	CANUSB01	Rx	18EFFF9	8	17 00 00 00 00 00 00 00
2,0257	0,2305	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
2,0628	0,0371	CANUSB01	Rx	1CE6FFCF	8	21 0E 00 00 00 00 00 00
2,1089	0,0461	CANUSB01	Rx	1CE6FFCF	8	21 0F 00 00 00 00 00 00
2,1621	0,0532	CANUSB01	Rx	1CE6FFCF	8	21 10 00 00 00 00 00 00
2,2132	0,0511	CANUSB01	Rx	1CE6FFCF	8	21 11 00 00 00 00 00 00
2,2603	0,0471	CANUSB01	Rx	1CE6FFCF	8	21 12 00 00 00 00 00 00
2,2743	0,0140	CANUSB01	Rx	14600041	8	00 00 00 00 00 00 00 00
2,3098	0,0355	CANUSB01	Rx	1CE6FFCF	8	21 13 00 00 00 00 00 00
2,3569	0,0471	CANUSB01	Rx	1CE6FFCF	8	21 14 00 00 00 00 00 00

Basic System table

Requirement	Technology
Basic Functional measures	Analog and digital I/O provided by Seica hardware solutions
Communication links	Serial, USB, CAN, LIN, FlexRay, MOST, Ethernet interfaces supported
Video	RGB, S-Video, VGA, HDMI, CVBS, LVDS generations and acquisitions
Analog Audio	Analog signals quality analysis
Digital Audio	Most common digital interfaces such as S/PDIF, I2S supported
Radio generators	AM/FM standards with RDS, digital radio, digital TV (DVBT-DVBT2)
High Frequency test	Generation and analysis of signals: BT, Wifi, cell phones technologies including GSM, EDGE, CDMA, LTE
GNSS	GPS, Glonass, Beidou, Galileo satellite simulators

INDUSTRY 4.0

Information and the technology needed to collect and analyze data, is key to the successful digitalization of the manufacturing process, which is at the heart of the **Industry 4.0** concept.

The **Compact line** has all of the capabilities needed for implementation in any **Factory 4.0** scenario, providing the possibility to plug in any proprietary or third party information system to achieve the desired goals.

GLOBAL SUPPORT NETWORK

THANKS TO THE GLOBAL EXTENSION OF SEICA AND ITS SUBSIDIARIES, SEICA CAN ENSURE LOCAL SERVICE SUPPORT WHEREVER THE CUSTOMER NEEDS IT, IN ADDITION TO 24-HOUR TELEPHONE ASSISTANCE.



Seica reserves the right to change any technical specification without notice

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