MADE IN BRITAIN®

without compromise

mediaport®

Secure Compute & Connect™

Secure connectivity and edge processing for rapid deployment, challenging environments, and critical communications

Nowadays, connectivity is at the heart of everything we do.

We expect to find fast, reliable internet wherever we go. Yet in many situations, even with a choice of cellular, public Wi-Fi or LEO Sat, no single provider can consistently deliver the performance we need.

Poor connectivity thwarts our productivity; inadequate security can expose individuals and businesses to intolerable threats.

In critical national infrastructure, defence, and law enforcement, the stakes are even higher. Devices that offer mobile and rapidly deployed connectivity can play life-saving roles in public safety scenarios. But if they conceal security vulnerabilities, they may turn out to be our Achilles' heel.

PROVENANCE MATTERS
In a world full of geopolitical threats, the origin of the equipment we depend on for our critical comms matters more than ever.

Organisations with a healthy aversion to risk, both government and commercial, increasingly turn to manufacturers that source critical components exclusively from trusted jurisdictions. That includes microprocessors, integrated circuits, and embedded modules deep under the hood.

Mediaport Systems designs and manufactures products that address the challenges of delivering ad-hoc, wide area connectivity for mission-critical applications, with emphasis on performance, utility, and security. Our products create enterprise-type connectivity by bonding multiple public (and/or private) internet connections like cellular, wi-fi, xDSL, and LEO Sat.

WITHOUT COMPROMISE
Made In Britain, and with critical components sourced exclusively from the EU, USA, and countries with which the UK has security cooperation pacts, Mediaport products boast a hardened security posture and are built without compromise.

In a world full of geopolitical threats, the origin of the equipment we depend on for our critical comms matters more than ever.

I need a connection that's fast, secure, and reliable. But I never know where I'll need it next.

Go prepared for unrivalled performance in any situation: indoors and out, on the move, overt and covert, all-weather, in dense urban settings and remote countryside.

REAL WAN BONDING

The new Mediaport SONJA™ can bond up to four 5G networks and four LEO Sat, or any combination of 5G, 4G, Wi-Fi, Satellite etc. Powered by Bondix®, SONJA delivers real bandwidth aggregation and unmatched performance in situations where individual networks can let you down.

RAPIDLY DEPLOYED

Built for rapid deployment in challenging conditions, SONJA Rugged accepts twin hot-swap batteries and has an IP67 rated, milled aluminium enclosure with recessed connectors to withstand persistent rough handling and outdoor use.

The edge is where the action is.

Edge computing can bring significant benefits compared to processing at the data centre. That's why virtualisation is at the core of our strategy to create hybrid products that combine intelligent apps with resilient backhaul, in collaboration with specialist partners.

Alongside a family of standard COTS versions, Mediaport SONJA is available with powerful edge computing capabilities to certified OEMs.

EDGE-COMPUTE READY
Built on a flexible industrial platform with an open source Linux ecosystem, SONJA's virtualised operating system can securely host third party apps including video encoders, IoT gateways, ANPR, amongst many others.

These hybrid edge devices, developed with and sold via strategic OEM partners, are force-multipliers that can deliver potent compute-and-connect functionality, in small ruggedised form factors, for the most arduous roles in defence, intelligence, and law-enforcement, amongst numerous commercial applications.

Secure Compute & Connect™

Our holistic approach to device security and integrity encompasses hardware based Secure Boot, Secure Update, and a critical components supply chain that's limited to the UK, EU, USA and countries with which the UK has security cooperation pacts.

MADE IN BRITAIN®

Unique | Immutable | Unclonable

SECURE BOOT EXPLAINED
A read-only root private key is fused into the CPU at the time of manufacture. Additional keys and hashes are stored in the onboard Maxim DeepCover TPM.

Trusted boot guarantees the integrity of all code executed on your Mediaport, from the very first boot instruction. It ensures only system components signed by Mediaport Systems Ltd, SIMA GmbH (for Bondix), and the silicon vendors are loaded, and it assures the authenticity of Mediaport hardware and software.

Additional keys and hashes can be stored on in the onboard Maxim Deepcover TPM, authenticated by the hardware based Root of Trust secure boot. These can provide a means of authenticating each Mediaport as it attempts to connect to the server, preventing impersonation and network penetration by a cloned device.

MADE IN BRITAIN with all critical components sourced from trusted jurisdictions including EU, USA, and countries with which the UK has security cooperation pacts.

TRUSTED EXECUTION ENVIRONMENT with hardware based root of trust (RoT) and chain of trust (CoT) guarantees the authenticity of our hardware and software, even if the device is used unattended in a hostile environment.

CUSTOMER'S OWN ROT KEYS can be used and we can provide additional secure key and hash storage in the on-board Maxim® Deepcover® TPM.

OPTIONAL SECURITY FEATURES include anti-tamper on intrusion or movement, with encryption key-wipe even without power, plus special features for covert and expeditionary use by approved government customers.

PROTECTING OUR OEM PARTNERS SONJA's guest VM can be incorporated into the secure boot chain of trust, and OEM's keys and hashes can be stored on the Maxim Deepcover TPM.

SONJA Standard features

- 2 or 4 x built-in Telit Cinterion high grade 5G modems
- 4 x GB ethernet (WAN or LAN assignable)
- Dual-band wi-fi (WWAN or WLAN assignable)
- Bondix by SIMA, 3 year Ultimate license
- Real WAN bonding, IP diversity, and load-balancing
- Up to 1Gbit/s throughput (unencrypted), 250Mbit/s (encrypted)
- User-configurable QoS
- Server software for customer hosting in cloud or on premises, including second license for high-availability redundant server
- Mediaport Secure Compute & Connect™
- Guest VM for edge computing by certified OEMs
- 3 years software support, 1 year hardware warranty
- Optional support and license extensions

bondix by SIMA

SONJA Rugged

SONJA Rackmount (preliminary image subject to change)

SONJA Versions

SONJA Rugged

- 4 x built-in 5G modems, 2 x 2 MIMO (SON-RG-0010)
- 2 x built-in 5G modems, 4 x 4 MIMO (SON-RG-0011)
- Portable, ruggedised, IP67
- Powered via universal mains power adaptor, 8-33V DC on Lemo connector, or up 2 x AN/PRC148 batteries (batteries available separately)
- Hot-swap batteries and UPS functionality between all power sources
- Aux power out 12V 3A on Lemo connector (unregulated), and 5V 1.5A on USBC (auto -sensing and regulated)
- 186 x 164 x 44mm, 1.5kG

SONJA Desktop / Rackmount

- 4 x built-in 5G modems, 4 x 4 MIMO (SON-RM-0012)
- 2 x built-in 5G modems, 4 x 4 MIMO (SON-RM-0013)
- Powered via universal mains power adaptor (included), or 8-33V DC on screw-lock barrel connector
- Aux power out 5V 1.5A on USBC (auto-sensing and regulated)
- 277 x 164 x 44mm (desktop), 19" x 1u (rackmount)

The Team behind Mediaport

JOHNNIE DYMOCK, CEO Johnnie is responsible for the Mediaport concept and design. He has a 30+ year track record of providing technology solutions and services to the world's top entertainment and media brands, and is an expert in multi-WAN technology for mission-critical applications. He holds UK Secret security clearance with the Ministry of Defence and works closely with defence and law-enforcement, using feedback from specialist users to shape the products and solutions he designs.

ANTHONY FAUST, CTO Anthony is the solutions architect behind our virtualised designs and is responsible for overseeing software development, testing, and quality control. Based in Montreal, Anthony works closely with North American partners providing product support and technical training. Anthony has a background in film and television engineering and a strong predilection for solutions engineering and software development.

GÜNTER HÜNDL, CTO Günter is an experienced financial controller with skills in corporate management, accounting, budget planning, project management, marketing, legal affairs and human resources. He has a Diplom-Kaufmann (MBA) in Business Management from Ludwig-Maximilians-Universität in Munich, a Bachelor of International Trading from Bayerische Akademie für Außenwirtschaft, and was CFO of the Viprinet from 2011-2014.

MARTIN SANTNER, SALES CONSULTANT Martin has 15+ years of experience selling specialist connectivity solutions, and has built an extensive global network of resellers and end users. He is a founder and the head of international business development at SIMA GmbH, a title he previously held at Viprinet. Martin combines strong selling skills with a deep technical understanding of the solutions he represents.

SIMON LEY, SOFTWARE CONSULTANT Simon is a skilled development engineer with more than 15 years experience at Viprinet, Microsoft, and currently SIMA GmbH, where is a founding partner. At SIMA, he has been responsible for designing and implementing the Bondix WAN bonding protocol from the ground up. Simon manages a team of in-house and contract developers and will contribute valuable know-how to the development of new Mediaport products and features.

SONJA Specifications

Part numbers	SON-RG-0010	SON-RG-0011	SON-RM-0020	SON-RM-0021
GENERAL				
Modems	4	2	4	2
Enclosure format	Rugged		Desktop / 19" Rackmount	
IP Rating	IP67		IP54	
Operating temperature	-20 to +50C		0 to +50C	
Router OS	OpenWRT with Bondix® by Sima, 3 year license included			
Host OS	Linux hypervisor KVM / QEMU			
Guest VM	Ubuntu, OpenWRT, plus others available to certified OEMs			
CPU	Marvell OcteonTX™ Quad Core ARMv8, 1.5GHz			
Secure Boot	Yes			
MULTI-WAN FEATURES				
Bonding modes	Bonding / IP Diversity / Load Balancing / Seamless Handover			
QoS	User-configurable			
Encryption	ChaCha20			
Monitoring & management	Web GUI, real-time graphical monitoring			
Throughput, bonded [1]	Up to 1Gbit/s (unencrypted), 250Mbit/s (encrypted)			
Throughput, WAN breakout [1]	Up to 1Gbit/s			
CELLULAR				
Integrated 5G modems	4 x Telit Cinterion FN980	2 x Telit Cinterion FN980	4 x Telit Cinterion FN980	2 x Telit Cinterion FN980
SIM carriers	4 x Mini SIM (2FF)	2 x Mini SIM (2FF)	4 x Mini SIM (2FF)	2 x Mini SIM (2FF)
Antenna connectors	8 x SMA, 2 per modem [2]	8 x SMA, 4 per modem	16 x SMA, 4 per modem	8 x SMA, 4 per modem
Frequency bands, 5G	n1, n2, n3, n5, n8, n12, n20, n28, n41, n48, n66, n71	n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79		
Frequency bands, LTE	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71			
ETHERNET / WI-FI				
Ethernet	4 x GB ethernet (LAN / WAN assignable), Amphenol ruggedised RJ45			
WiFi	Dual band 802.11x (WLAN / WWAN assignable), 2 x SMA			

Part numbers	SON-RG-0010	SON-RG-0011	SON-RM-0020	SON-RM-0021
SERVER / BACK-END				
Bondix server	Licenses for two server instances included			
Hosting	By customer - cloud, on-premises or both			
POWER				
External AC	110 - 240V AC, universal mains adaptor included			
External DC	8-33V DC, 60W			
DC connector	Lemo HEN.0M.305.XLNP		5.5 / 2.5mm locking barrel jack (Lemo optional)	
Batteries	Twist-lock connectors for 2 x Brentronics BT-70716BV		N/A	
Hot swap batteries	Yes		N/A	
UPS functionality	Mains - battery, and battery - battery		N/A	
Battery status indication	Tri-colour LEDs		N/A	
Aux power out 5V	5V at 1.5A on USB-C, auto-sensing and regulated		5V at 1.5A on USB-C, auto-sensing and regulated	
Aux power out 12V (nominal)	Unregulated (pass-through), Lemo connector		N/A	
Power consumption (typical) [3]	15W idle, 20W loaded		15W idle, 25W loaded	15W idle, 20W loaded
PHYSICAL				
Dimensions	186x164x44mm / 7.3x6.5x1.75 in		277x164x44 / 10.9x6.5x1.75 in (exc. ears)	
Weight	1.5kG / 3.3lb (exc. batteries)			
Cooling	Passive		Dual variable speed fans, push-pull	
WARRANTY / SUPPORT [4]				
Hardware warranty	1 year limited hardware warranty			
Bondix license & software support	3 years email support & software updates			

Note 1 Throughput depends on WAN performance

Note 2 The availability of 5G and certain frequency bands on MPC-0010 depends on the network operator's policies regarding the use of two antenna

Note 3 Figures for typical "loaded" power consumption are provisional and subject to review

Note 4 Hardware warranty, Bondix license and software support can be extended by purchasing Service Extensions

Specifications subject to change without notice. E&OE.

SONJA Optional Extras

Part numbers	SON-RG-0010	SON-RG-0011	SON-RM-0012	SON-RM-0013
OPTIONAL EXTRAS				
Direct fit battery 7Ah	Brentronics BT-70716BV		N/A	
Dual desktop battery charger	Brentronics BTC-70716-1CE		N/A	
Vehicle power adapter cable	SON-RG-CARCAB		SON-RK-CARCAB	
Custom foamed hard case	SON-RG-HRDCSE		SON-RK-HRDCSE	
SERVICE EXTENSIONS				
Bondix & software support, +2 yrs	SON-RG-010-BDXEXT	SON-RG-011-BDXEXT	SON-RK-020-BDXEXT	SON-RK-021-BDXEXT
Hardware warranty, +2 yrs	SON-RG-010-	SON-RG-011-	SON-RK-020-	SON-RK-021-

Company Info

Mediaport Systems Ltd
Company number 1466 2727.
Registered Office 31 Lee View
Enfield EN2 8RY.

VAT GB468201004
EORI GB468201004000

WEB
www.mediaportsystems.com

CONTACT
sales@mediaportsystems.com

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