

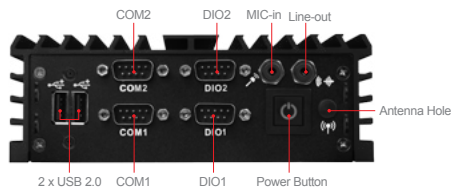
# MS-9A59

Palm-Size Box PC with Intel® Braswell N3160 SoC Platform for Ultra Low-Power Fanless Solution

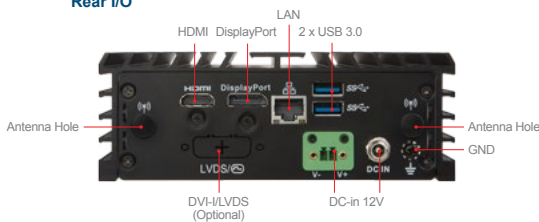
NEW



Front I/O



Rear I/O



## Features

- Ultra low power with fanless design
- Support Onboard 2GB DDR3L memory
- Support 2 or 3 independent displays with HDMI, VGA, and DVI-I/LVDS(Optional)
- Support 16-bit GPIO (8\*GPI; 8\*GPO)
- Support 1 Intel® GbE LAN, 2 USB 3.0, 2 USB 2.0 and 2 COM ports
- Support Flexible DC-in 12V input
- Anti-Vibration & Shockproof Design

## Ordering Information

Part Number	Description
939-9A59-001	MS-9A59\MS-9A59\709-9A59-010\829-9A59-004\STD MS-9A59 VER 1.1 HEATSINK, 1*SATA CABLE, 2*WALL MOUNT, CD, 12V/36W ADAPTER, POWER CORD USA SINGLE
939-9A59-002	MS-9A59\MS-9A59\709-9A59-010\829-9A59-005\STD MS-9A59 VER 1.1 HEATSINK, 1*SATA CABLE, 2*WALL MOUNT, CD, 12V/36W ADAPTER, POWER CORD EU SINGLE

## Packing List

Part Number	Description
K33-3001020-I45/ K33-3001021-I45	Power Cord, USA, 1800mm/ Power Cord, EU, 1800mm
K1D-3010018-V03	SATA Cable with power, 120mm
NA1-1020051-PC1	Phoenix Terminal Plugged
S93-0408870-S14	Adapter 12V/36W
G71-SEDC165-N56	Driver DVD
E22-9A59010-LA2	Wall Mounting Bracket
E25-9B01030-K23	Rubber for Wall Mounting
E49-1068001-P65	Screw for Wall Mounting

## Specifications

<b>System Processor</b>	CPU	Intel® Celeron® Processor N3160, QC, 6W
	Frequency	1.6 GHz up to 2.24 GHz
	L2 Cache	2MB
	CPU Type	BGA
	Chipset	Integrated in SoC Processor
<b>Memory</b>	BIOS	AMI
	Technology	Single-Channel DDR3L 1600MHz
	Max. Capacity	Onboard 2 GB
<b>Graphic</b>	Socket	N/A
	Controller	Intel® HD Graphics
	Graphic Memory	Shared system memory up to 1.7 GB SDRAM
	Multiple Display	3 independent displays
<b>Display Interface</b>	HDMI	HDMI up to 3840 x 2160 @ 30 Hz
	DVI-I	DVI-I up to 1366 x 768 @ 60 Hz (by BOM option)
<b>Ethernet</b>	Controller	1 x Intel® I211-AT GbE LAN
<b>Audio</b>	Controller	Realtek® ALC887-VD2-CG HD Audio Codec
<b>H/W Monitor</b>	Watchdog Timer	256-level Watchdog Timer
<b>TPM</b>	Controller	Pin Header
<b>Expansion Slot</b>	Mini-PCIe	1 x Half-size
<b>Storage</b>	SATA	1 x 2.5" HDD/SSD Bay
	mSATA	1 x Full-size
<b>I/O Interface</b>	RJ-45	1
	Audio	1 x Line-out 1 x Mic-in
	USB	2 x USB 3.0 2 x USB 2.0
	Serial	2 x COM Ports COM1: RS-232/422/485, 0V/5V/12V COM2: RS-232/422/485, 0V/5V/12V
	HDMI	1
	LVDS	1 (by BOM option)
	DVI	DVI-I (by BOM option)
	DisplayPort	1
	Antenna	3 Openings Reserved for Antennas
	<b>Power Supply</b>	DC Input
AC Input		N/A
Operating Temperature		-10 ~ 45°C (2.5" HDD) -10 ~ 55°C (2.5" SSD or mSATA)
<b>Environment</b>	Operating Humidity	10 ~ 90%, non-condensing
	Storage Temperature	-20 ~ 80°C
	Storage Humidity	10 ~ 90%, non-condensing
	Vibration	Operating, 0.5 Grms, 5-300Hz, 3axes (w/ HDD) Operating, 5 Grms, 5-300Hz, 3axes (w/ SSD)
	Shock	Operating, 3 G, half sine 11 ms duration (w/ HDD)
<b>Physical characteristics</b>	Dimensions	155mm x 105mm x 55 mm
	Weight	0.9kg
	Mounting	Wall mount (STD)/VESA mount(by BOM option) / DIN-rail mount(by BOM option)
<b>Certification</b>	EMC	FCC, CE, RCM, VCCI, BSMI
	Safety	BSMI
<b>Software Platform</b>	OS Support	Windows 7 (32/64-bit), Windows 8.1 (32/64-bit) Windows 10 (64 Bit) Fedora 21 Ubuntu14.04

## Optional Items

Part Number	Description
E22-9A25031-C22	VESA Mount
E24-9B02010-P09	DIN Rail
E41-1356002-P65	Screw for DIN Rail