Nematron

For more information or to request a quote, visit us online at www.nematron.com

*n*PC-Series

intel · CE · UL · cUL · RoHS compliant

Made with Pride in the USA

Rugged High Performance "Node" Industrial PCs Without Displays
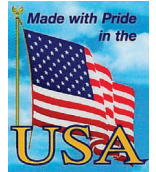
Now with Intel i5 & i7 Processors

The Nematron *n*PC-Series of high performance industrial computers are designed for applications where the computer must be separate or remote from the monitor. With extensive I/O and available PCI expansion, the *n*PC-Series units are ideal for most industrial applications. Their compact profiles and high performance make these units ideal for many space limited applications.

*n*PC100
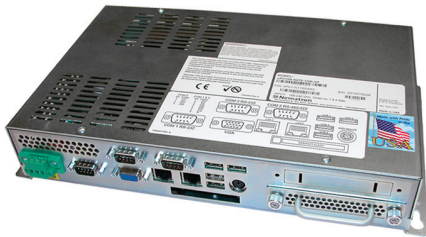
Standard Features

- 3 High Performance/Low Power Processor Options to choose from:
  - Intel ATOM N270 Fanless (1.66 GHz, 512K cache, 533 MHz bus)
  - Intel Celeron M 440 (1.86 GHz, 1 M cache, 533 MHz bus)
  - Intel Core Duo T2500 (2.0 GHz, 2 M cache, 667 MHz bus)
- 2 GB DRAM
- On board Video with Analog VGA port
- Extensive Connectivity
  - Dual Gigabit (10/100/1000) Ethernet ports

- One RS-422/485 serial port (jumper selectable)
- Two RS-232 serial ports
- 4 USB 2.0 ports
- PS/2 port (mouse & keyboard splitter supplied)
- Rear Accessible Type I/II CompactFlash socket
- Intel 40 GB SATA Solid State drive (Easily Removable)
  - Optional larger sizes or Rotating hard drive
- Integrated 100-240 AC Power Supply (optional 24 VDC)

- UL and cUL Ordinary Locations Listed
- UL and cUL Hazardous Locations Listed
  - Class I Division 2, Groups A, B, C, & D; when mounted in a NEMA enclosure
- FCC & European CE compliant
- RoHS compliant
- Windows XP Professional pre-installed (Windows 7 Professional optional)
- 2-year Warranty

*n*PC200

Standard Features

- Rugged industrial "Node" PC with PCI expansion
- 2 High Performance/Low Power Processor Options to choose from:
  - Intel Mobile Celeron 550 (2.0 | GHz, 1 M cache, 533 MHz bus)
  - Intel Core 2 Duo T7500 (2.2. GHz, 4 M cache, 800 MHz bus)
- 2 GB DRAM (4 GB max)
- 2 PCI expansion slots (8.75" max length)
- On board Video with Analog VGA port
- Extensive Connectivity
  - Dual Gigabit (10/100/1000) Ethernet ports

- One RS-422/485 serial port (jumper selectable)
- Two RS-232 serial ports
- 4 USB 2.0 ports
- PS/2 mouse & keyboard ports
- Intel 40 GB SATA Solid State drive (Easily Removable)
  - Optional larger sizes or rotating hard drive
- Second Drive Option
  - Optional RAID Level 1 (mirroring) configuration (Windows XP only)
- Easily Removable SATA DVD-R/W drive
- Integrated 100-240 AC Power Supply (optional 24 VDC)

- UL and cUL Ordinary Locations Listed
- UL and cUL Hazardous Locations Listed
  - Class I Division 2, Groups A, B, C, & D; when mounted in a NEMA enclosure
- FCC & European CE compliant
- RoHS compliant
- Windows XP Professional pre-installed (Windows 7 Professional 32-bit or Windows 7 Ultimate 64-bit optional)
- 2-year Warranty

*n*PC300   **NEW!**

Standard Features

- 3 High Performance / Low Power Processor options to choose from:
  - Intel® Dual Core Celeron® P4500 (1.86 GHz, 2 M cache, 2 Threads)
  - Intel® i5 Dual Core 520M (2.4 GHz, 3 M cache, 4 Threads)
  - Intel® i7 Dual Core 620M (2.66 GHz, 4 M cache, 4 Threads)
- 2 GB DRAM (4 GB Optional)
- Intel 40 GB Easily Removable SATA Solid State Drive
  - Optional larger sizes and rotating HD
- Extensive I/O Connectivity
  - Dual Gigabit (10/100/1000) Ethernet ports

- 6 USB 2.0 ports
- One RS-485/422 serial port (jumper selectable)
- Two RS-232 serial ports
- Analog Video port and HDMI port - supports dual video (Optional HDMI to DVI cable available - sold separately)
- Integrated 100-240 VAC power supply
  - 24 VDC optional
- UL and cUL Ordinary Locations Listed

- UL and cUL Hazardous Locations Listed
  - Class I Division 2, Groups A, B, C, & D; when mounted in a NEMA enclosure
- FCC & European CE compliant
- RoHS compliant
- Windows® 7 Professional (32-bit) pre-installed
  - Windows XP Professional (32-bit) or Windows 7 Ultimate (64-bit) optional
- 2-year Warranty

nPC100 - Features & Benefits
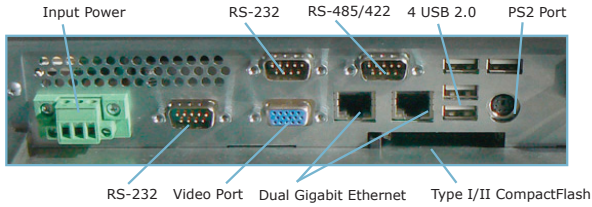
Easily Removable SATA Solid State Drive
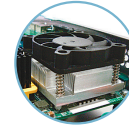- Larger size options or rotating hard drive

High Performance/ Very Low Power Fanless Processor
- Intel® ATOM N270 *(1.6 GHz, 512 K Cache, 533 MHz bus)*

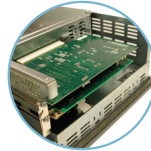**CompactFlash to replace CD-ROM and floppy drives**

USB Retention Bracket

High Performance / Low Power Processor Options
- Intel® Celeron® M 440 *(1.86 GHz, 1 M cache, 533 MHz bus)*
- Intel® Core Duo™ T2500 *(2.0 GHz, 2 M cache, 667 MHz bus)*

Extensive I/O Connectivity

Input Power | RS-232 | RS-485/422 | 4 USB 2.0 | PS2 Port

RS-232 | Video Port | Dual Gigabit Ethernet | Type I/II CompactFlash

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nPC200 - Features & Benefits

PCI Expansion: Two Card Slots 8.75" max length

Hot-swappable, Easily Removable DVD-RW drive

Now with | **Optional 64-Bit Application Support**

Windows 7 Ultimate
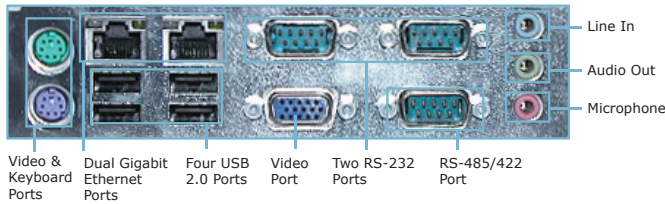
Two Easily Removable Drive Bays
- Solid State Drives or Rotating Hard Drive Options

USB Retention Bracket
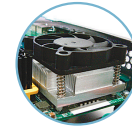
High Performance / Low Power Processor Options
- Intel® Mobile Celeron® 550 *(2.0 GHz, 1 M cache, 533 MHz bus)*
- Intel® Core 2 Duo™ T7500 *(2.2 GHz, 4 M cache, 800 MHz bus)*

Extensive I/O Connectivity

Line In
Audio Out
Microphone

Video & Keyboard Ports | Dual Gigabit Ethernet Ports | Four USB 2.0 Ports | Video Port | Two RS-232 Ports | RS-485/422 Port

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nPC300 - Features & Benefits

NEW!

Supports Dual Displays

Easily Removable SATA Solid State Drive
- Larger size options or rotating hard drive

Windows 7 Ultimate | **Optional 64-Bit Application Support**

USB & HDMI Retention Brackets
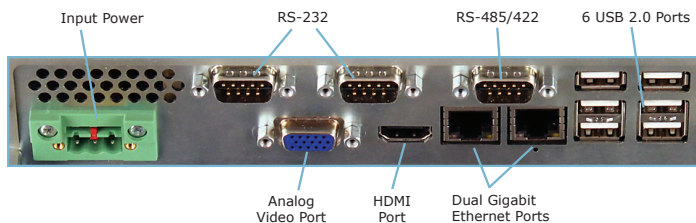
High Performance / Low Power Processor Options
- Intel® Dual Core Celeron® P4500 *(1.86 GHz, 2 M cache, 2 Threads)*
- Intel® i5 Dual Core 520M *(2.4 GHz, 3 M cache, 4 Threads)*
- Intel® i7 Dual Core 620M *(2.66 GHz, 4 M cache, 4 Threads)*

Extensive I/O Connectivity

Input Power | RS-232 | RS-485/422 | 6 USB 2.0 Ports

Analog Video Port | HDMI Port | Dual Gigabit Ethernet Ports

Technical Specifications

NEW!

Physical

	nPC100	nPC200	nPC300
Overall Dimensions *H x W x D*	7.750" x 12.00" x 2.15" (196.8mm x 304.8mm x 54.61mm)	9.00" x 15.00" x 3.34" (228.6mm x 381.0mm x 84.8mm)	7.750" x 12.00" x 2.15" (196.8mm x 304.8mm x 54.61mm)
Overall Dimensions w/ Mounting Brackets	7.750" x 13.30" x 2.45" (196.8mm x 337.82mm x 62.23mm)	9.00" x 16.30" x 3.65" (228.6mm x 414.0mm x 92.71mm)	7.750" x 13.30" x 2.45" (196.8mm x 337.82mm x 62.23mm)
Weight	6.5 lbs (2.9 kg)	12.0 lbs (5.4kg)	6.5 lbs (2.9 kg)
Shipping Weight	8.0 lbs (3.6 kg)	14.0 lbs (6.4kg)	8.0 lbs (3.6 kg)

Processor Options

Chipset	Intel 945GSE+ICH7M			Intel 965GME+ICH8M		Intel HM55 (BD82HM55 PCH)		
Video RAM	8MB - 128MB (System RAM)			Up to 384MB (System RAM)		64 MB System RAM Base [1]		
Type	Intel ATOM	Intel Celeron M	Intel Core Duo	Intel Mobile	Intel Core 2 Duo	Intel Dual Core	Intel i5	Intel i7
Processor	N270	CM440	T2500	Celeron 550	T7500	Celeron P4500	Dual Core 520M	Dual Core 620M
Core Speed	1.6 GHz	1.86 GHz	2.0 GHz	2.0 GHz	2.2 GHz	1.86 GHz	2.4 GHz	2.66 GHz
Threads	-	-	-	-	-	2	4	4
Bus/Core	533 MHz	533 MHz	667 MHz	533 MHz	800 MHz	14	18	20
L2 Cache	512K	1 MB	2 MB	1 MB	4 MB	2MB	4MB	4MB
Ethernet Controller	Realtek	Broadcom	Broadcom	Intel	Intel	Realtek	Realtek	Realtek

[1] Additional Video RAM as needed with DVMT (Dynamic Video Memory Technology).

Electrical

	w/ N270	w/ CM440	w/ T2500	w/ MC550	w/ T7500	w/ Intel P4500	w/ Intel i5	w/ Intel i7
Input Power	20W Typical*	40W Typical*	40W Typical*	60W Typical*	60W Typical*	60W Typical*	60W Typical*	60W Typical*
AC Input Voltage/Max Current	100-240 VAC, 50-60 Hz, 1.0 A Maximum			100-240 VAC, 50-60 Hz, 2.0 A Maximum		100-240 VAC, 50-60 Hz, 1.0 A Maximum		
DC Input Voltage/Max Current	18-36 VDC, 4.5 A Maximum			18-36 VDC, 7.5 A Maximum		18-36 VDC, 6.0 A Maximum		

* Typical power is measured with all possible I/O ports functioning.

Memory & I/O

DRAM	2GB Single Module *(200-pin DDR2 SO-DIMM, non-ECC, unbuffered, 533 MHz)*	2GB Single Module *(200-pin DDR2 SO-DIMM, non-ECC, unbuffered, 667 MHz)*; Optional 4GB max	2GB Single Module *(204-pin DDR3 SO-DIMM, non-ECC, unbuffered, 1066 MHz)*; Optional 4GB max
Standard Storage	Intel 40GB SATA Solid State Drive	-	Intel 40GB SATA Solid State Drive
Optional Storage	80GB, 160GB or 300GB Solid State Drive; 250GB SATA Conventional Hard Drive	-	80GB, 160GB or 300 GB Solid State Drive; 250GB SATA Conventional Hard Drive
Drive 1	-	Intel 40GB SATA Solid State Drive; 80GB, 160GB or 300GB Solid State Drives optional; 250GB SATA Conventional Hard Drive	-
Drive 2	-	Intel 40GB SATA Solid State Drive; 80GB, 160GB or 300GB Solid State Drives optional; 250GB SATA Conventional Hard Drive; RAID Level 1 Mirroring	-
Optical Drive	-	1 DVD-R/W drive; No optical drive installed option (cover plate only)	-
Available I/O	(4) USB 2.0, Type I/II CompactFlash, (2) RS-232, (1) RS-485/422 (jumper selectable), (1) Analog Video Port (supports dual video), (2) Ethernet 10/100/1000 Ports, (1) PS/2 port [2]	(4) USB 2.0, Mouse & keyboard ports [2], (2) RS-232, (1) RS-485/422 (jumper selectable), (1) Analog Video Port (supports dual video), Line In/Audio Out/Mic ports [2]; (2) Ethernet 10/100/1000 ports	(6) USB 2.0, (2) RS-232, (1) RS-485/422 (jumper selectable), (1) Analog Video Port & (1) HDMI Port (supports dual video), (2) Ethernet 10/100/1000 Ports

[2] PS/2 not allowed for hazardous locations usage. Set up and maintenance use only.

Operating System

Standard OS	Windows XP Professional; Optional Windows 7 Professional 32-bit or No OS installed	Windows XP Professional (32-bit); Optional Windows 7 Professional (32-bit), Windows 7 Ultimate (64-bit), or No OS installed	Windows 7 Professional (32-bit); Optional Windows XP Professional (32-bit), Windows 7 Ultimate (64-bit), or No OS installed

COMMON SPECS

Environmental

	Operating	Non-operating
Temperature [2] / Humidity	0°C to 50°C / 20% to 80% RH, noncondensing	-20°C to 60°C / 20% to 80% RH, noncondensing
Shock [3]	15g peak acceleration, 11msec	30g peak acceleration, 11msec
Vibration *(5-2000 Hz)* [3]	.006" peak to peak displacement, 1.0g maximum acceleration	.015" peak to peak displacement, 2.5g maximum acceleration
Altitude [4]	Sea level to 10,000 feet	Sea level to 40,000 feet

[2] Temperature specifications are for air temp surrounding the unit (i.e. inside any enclosure being utilized).
[3] Shock & Vibration specifications established with Solid State drives and no rotating media.   [4] Altitude specification is established by using all internal component specifications.

Agency Approvals

Front Panel NEMA Rating	NEMA 4/4X/12, IP65
FCC	47 CFR, Part 15, Class A
EU CE Marking Compliance	CE, EN 55022: Class A, EN 61000-3-3, EN 61000-6-2, IEC 60950-1, RoHS compliant
Safety Agency Approvals *	UL508 Listed, ANSI/ISA 12.12.01-2012 [5], cUL Listed CSA C22.2, #142, cUL Listed CSA 22.2, #213

* Class I Division 2, Groups A, B, C, D; Temp. Code: T5 (nPC100/nPC200), T6 (nPC300), when installed on a flat surface of a Type 1 enclosure.
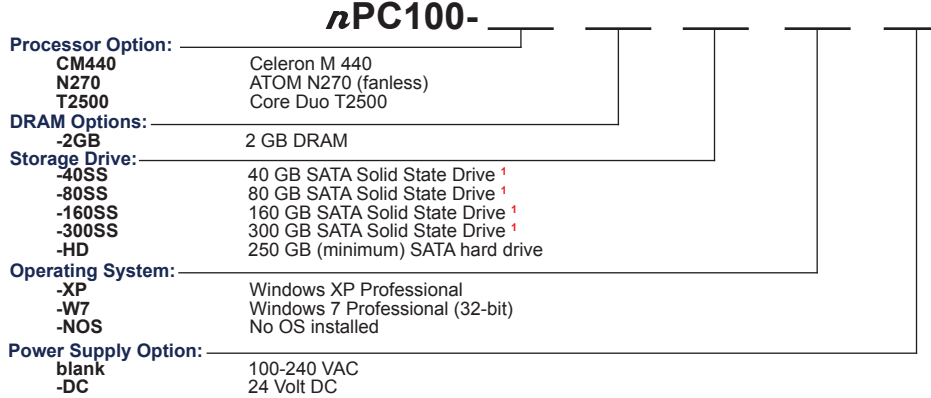[5] ANSI/ISA 12.12.01-2012 is the new standard listed to show Hazardous Locations Agency Approval. UL1604 has been discontinued as of July 31, 2012.

Order Number Generation

Nematron

Base unit configuration: nPC100-CM440-2GB-XP, Celeron M 440, 2 GB DRAM, 40 GB SATA Solid State Drive, and Windows XP Pro.

*n*PC100-

nPC100

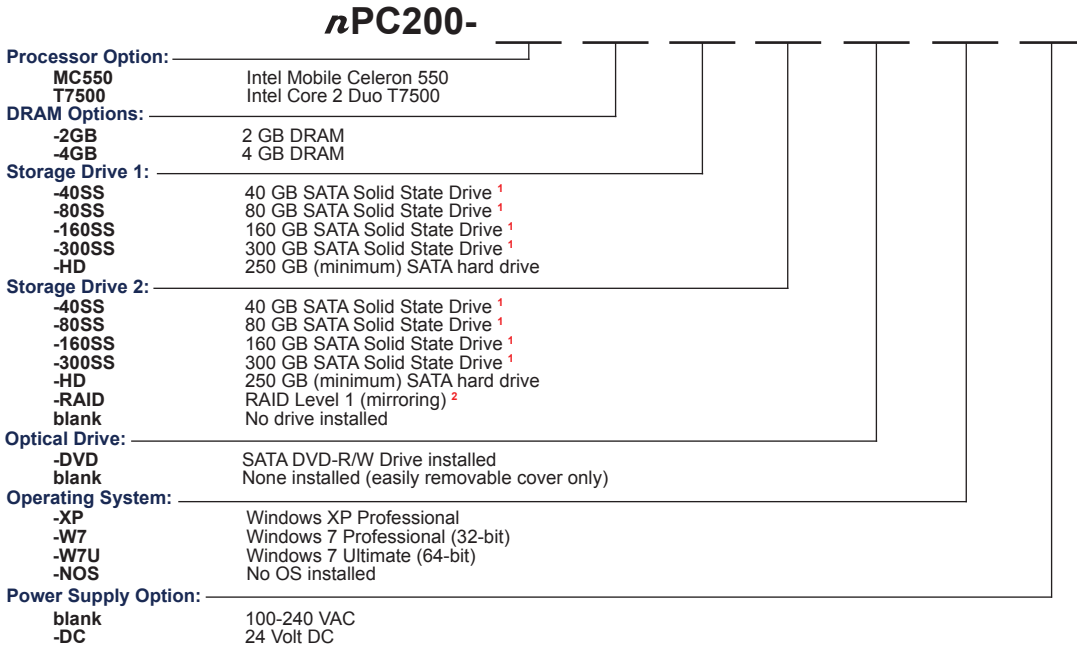|	
Processor Option:	
CM440	Celeron M 440
N270	ATOM N270 (fanless)
T2500	Core Duo T2500
DRAM Options:	
-2GB	2 GB DRAM
Storage Drive:	
-40SS	40 GB SATA Solid State Drive [1]
-80SS	80 GB SATA Solid State Drive [1]
-160SS	160 GB SATA Solid State Drive [1]
-300SS	300 GB SATA Solid State Drive [1]
-HD	250 GB (minimum) SATA hard drive
Operating System:	
-XP	Windows XP Professional
-W7	Windows 7 Professional (32-bit)
-NOS	No OS installed
Power Supply Option:	
blank	100-240 VAC
-DC	24 Volt DC

[1] Solid State Drive options carry a 5-year (part only) warranty.

Base unit configuration: nPC200-MC550-2GB-HD-DVD-XP, Mobile Celeron 550, 2 GB DRAM, 40 GB SATA Solid State Drive, DVD-RW, & Windows XP Pro.

*n*PC200-

nPC200

Processor Option:	
MC550	Intel Mobile Celeron 550
T7500	Intel Core 2 Duo T7500
DRAM Options:	
-2GB	2 GB DRAM
-4GB	4 GB DRAM
Storage Drive 1:	
-40SS	40 GB SATA Solid State Drive [1]
-80SS	80 GB SATA Solid State Drive [1]
-160SS	160 GB SATA Solid State Drive [1]
-300SS	300 GB SATA Solid State Drive [1]
-HD	250 GB (minimum) SATA hard drive
Storage Drive 2:	
-40SS	40 GB SATA Solid State Drive [1]
-80SS	80 GB SATA Solid State Drive [1]
-160SS	160 GB SATA Solid State Drive [1]
-300SS	300 GB SATA Solid State Drive [1]
-HD	250 GB (minimum) SATA hard drive
-RAID	RAID Level 1 (mirroring) [2]
blank	No drive installed
Optical Drive:	
-DVD	SATA DVD-R/W Drive installed
blank	None installed (easily removable cover only)
Operating System:	
-XP	Windows XP Professional
-W7	Windows 7 Professional (32-bit)
-W7U	Windows 7 Ultimate (64-bit)
-NOS	No OS installed
Power Supply Option:	
blank	100-240 VAC
-DC	24 Volt DC

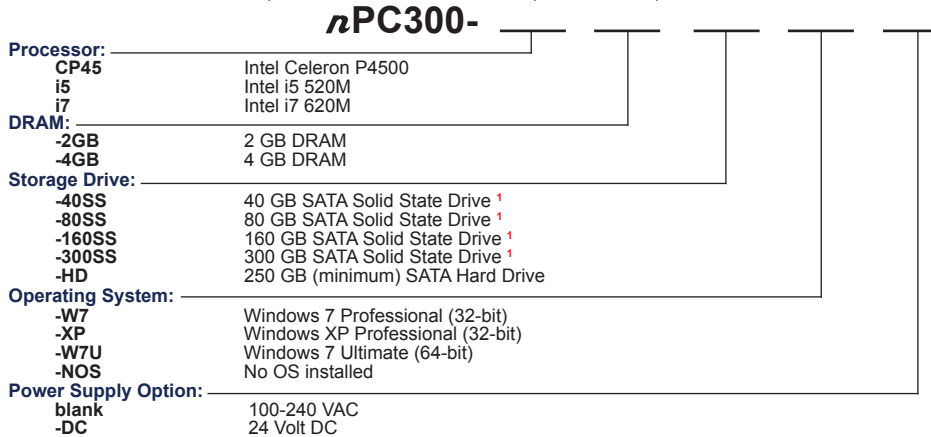[1] Solid State Drive options carry a 5-year (part only) warranty.

[2] If RAID Level 1 (mirroring) is desired, substitute "-RAID" for the second drive choice. The unit will be configured with two mirrored drives of the type chosen for Drive 1. This option is only available with Windows XP.

Base unit configuration: nPC300-CP45-2GB-40SS-W7, includes Intel Celeron P4500, 2 GB DRAM, 40 GB SATA Solid State Drive and Windows 7 Pro (32-bit).

*n*PC300-

nPC300

NEW!

Processor:	
CP45	Intel Celeron P4500
i5	Intel i5 520M
i7	Intel i7 620M
DRAM:	
-2GB	2 GB DRAM
-4GB	4 GB DRAM
Storage Drive:	
-40SS	40 GB SATA Solid State Drive [1]
-80SS	80 GB SATA Solid State Drive [1]
-160SS	160 GB SATA Solid State Drive [1]
-300SS	300 GB SATA Solid State Drive [1]
-HD	250 GB (minimum) SATA Hard Drive
Operating System:	
-W7	Windows 7 Professional (32-bit)
-XP	Windows XP Professional (32-bit)
-W7U	Windows 7 Ultimate (64-bit)
-NOS	No OS installed
Power Supply Option:	
blank	100-240 VAC
-DC	24 Volt DC

[1] Solid State Drive options carry a 5-year (part only) warranty.

Contact Information

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