



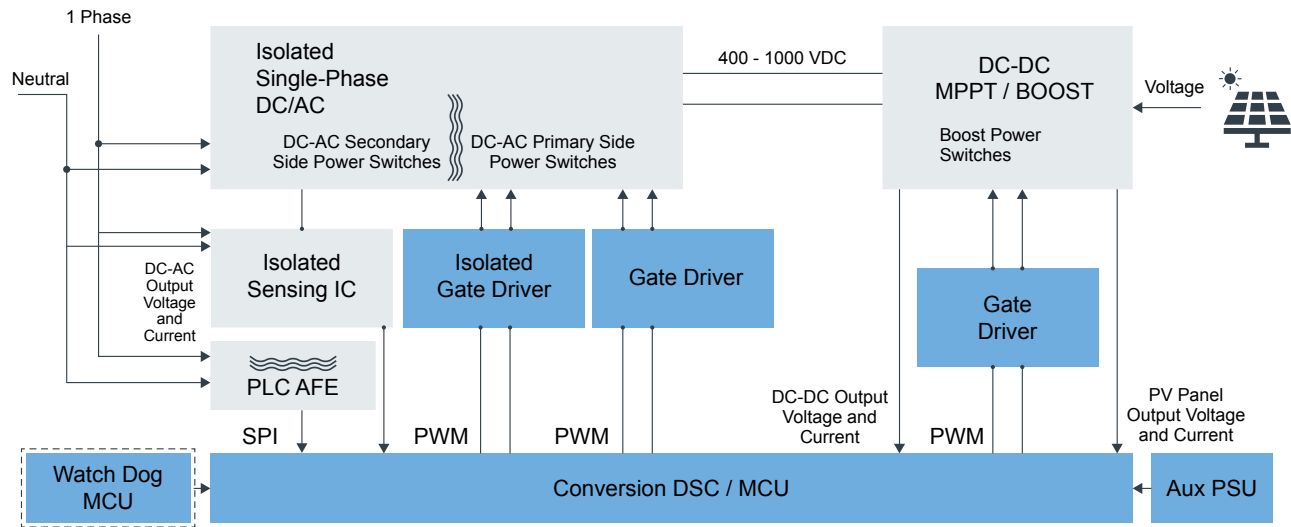
# Solar Photovoltaic (PV) Energy Generation System

Last Updated: Sep 5, 2024

NXP offers an array of products for several solar power generation system solutions such as photovoltaic inverters for residential, commercial and utility power generation systems that supply AC power to the grid. NXP solutions enable grid-tied systems (the most common types of photovoltaic systems today) and off-grid solar power systems. Where battery energy storage is desired, the PV inverters could be designed with bi-directional conversion and excess power can also be output to the grid.

Microcontrollers, gate drivers, power management devices and various types of wireless and wired connectivity devices are recommended for string and micro inverters (AC power output) as well as optimizer inverters (DC power output).

## Micro Inverter Block Diagram



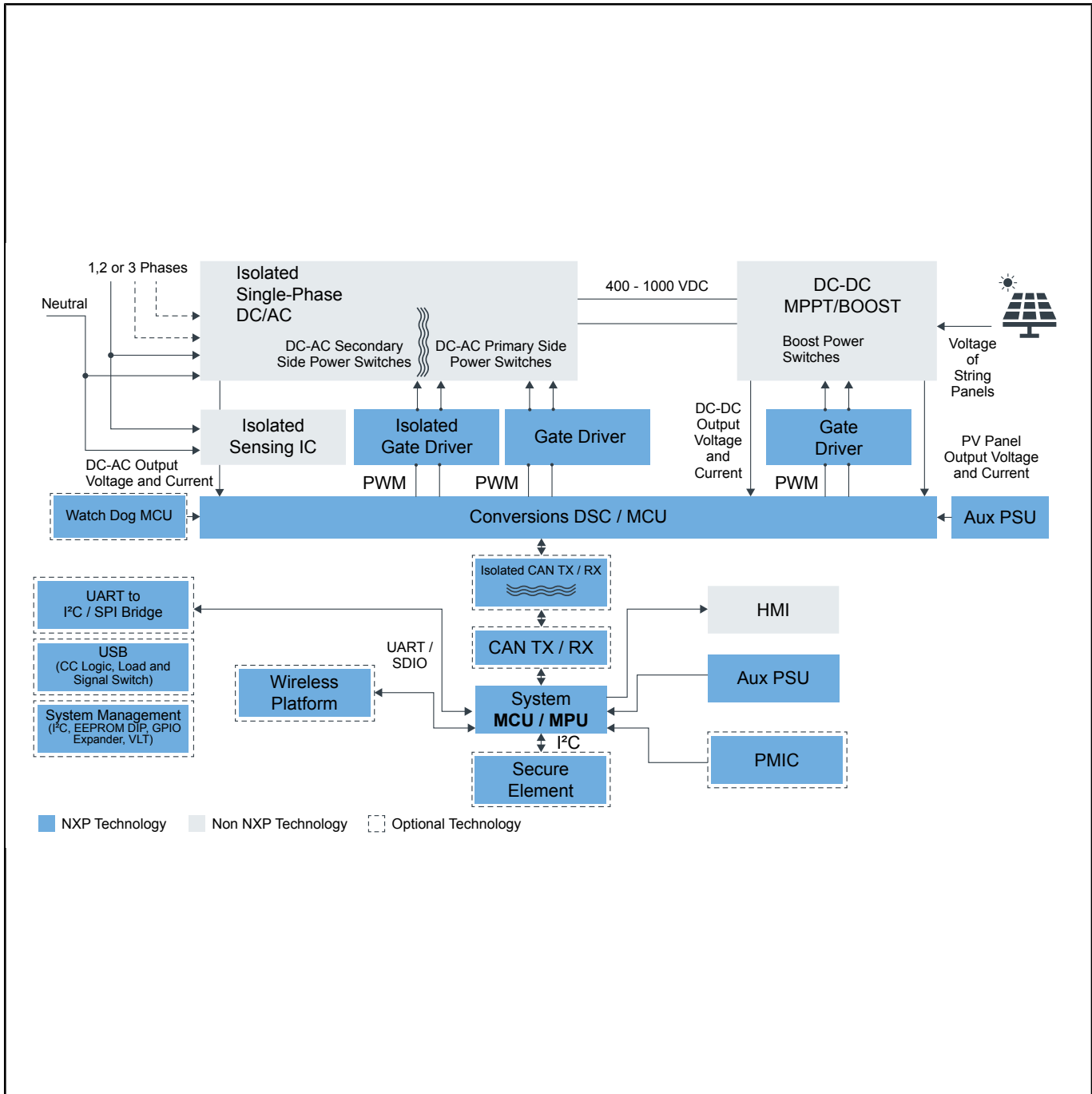
■ NXP Technology    ■ Non NXP Technology    □ Optional Technology

### Recommended Products for Micro Inverter

Conversion DSC / MCU	<ul style="list-style-type: none"> <li>• <a href="#">MCX A13x, 14x, 15x MCUs with Arm® Cortex® M33, Scalable Device Options, Low Power and Intelligent Peripherals</a></li> <li>• <a href="#">MCX-N94X-N54X</a>: MCX N94x/54x Highly Integrated Multicore MCUs with On-Chip Accelerators, Intelligent Peripherals and Advanced Security</li> <li>• <a href="#">KV4x</a>: Kinetis KV4x-168 MHz, High Performance Motor / Power Conversion MCUs based on Arm® Cortex®-M4</li> <li>• <a href="#">MC56F83xxx</a>: Performance Level Digital Signal Controllers, USB FS OTG, CAN FD</li> </ul>
Basic System MCU	<ul style="list-style-type: none"> <li>• <a href="#">LPC550x</a>: LPC550x/S0x: Baseline Arm® Cortex®-M33-Based Microcontroller Family</li> <li>• <a href="#">i.MX-RT1170</a>: i.MX RT1170: 1 GHz Crossover MCU with Arm® Cortex® Cores</li> </ul>
Isolated Gate Driver	<ul style="list-style-type: none"> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>

Aux PSU	<ul style="list-style-type: none"> <li>• <a href="#">TEA1833LTS</a>: GreenChip SMPS Control IC</li> </ul>
Gate Driver	<ul style="list-style-type: none"> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>
Watch Dog MCU	<ul style="list-style-type: none"> <li>• <a href="#">LPC8N04</a>: Low-Cost Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core</li> </ul>

## String Inverter Block Diagram

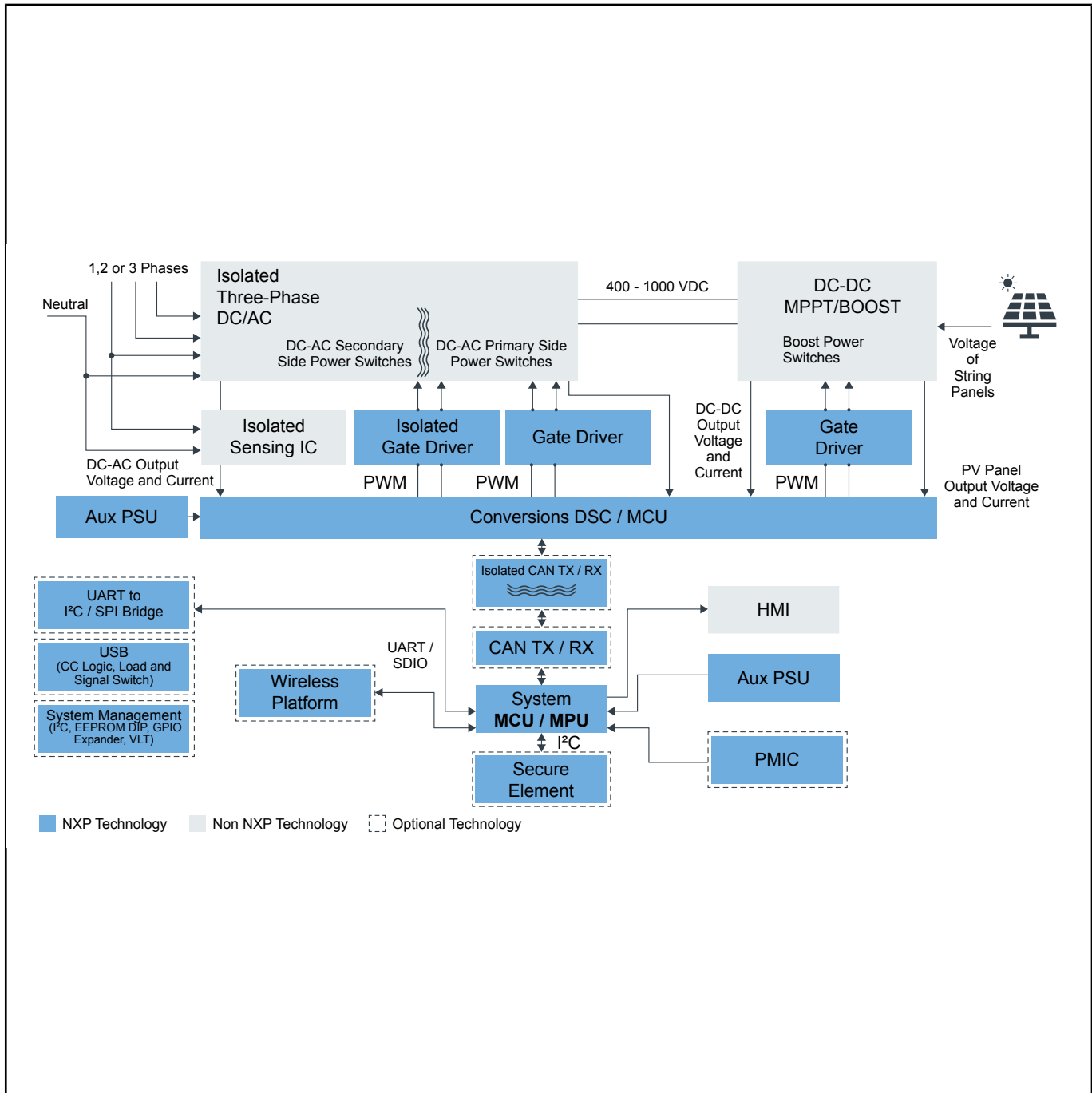


### Recommended Products for String Inverter

Conversion DSC / MCU	<ul style="list-style-type: none"> <li>• <a href="#">MCX A13x, 14x, 15x MCUs</a> with Arm® Cortex® M33, Scalable Device Options, Low Power and Intelligent Peripherals</li> </ul>
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	<ul style="list-style-type: none"> <li>• <b>MCX-N94X-N54X</b>: MCX N94x/54x Highly Integrated Multicore MCUs with On-Chip Accelerators, Intelligent Peripherals and Advanced Security</li> <li>• <b>KV4x</b>: Kinetis KV4x-168 MHz, High Performance Motor / Power Conversion MCUs based on Arm® Cortex®-M4</li> <li>• <b>MC56F83xxx</b>: Performance Level Digital Signal Controllers, USB FS OTG, CAN FD</li> </ul>
System MCU / MPU	<ul style="list-style-type: none"> <li>• <b>i.MX-RT1020</b>: i.MX RT1020: Crossover MCU with Arm® Cortex®-M7</li> <li>• <b>i.MX-RT1060</b>: i.MX RT1060: Crossover MCU with Arm® Cortex®-M7</li> <li>• <b>i.MX-RT1170</b>: i.MX RT1170: 1 GHz Crossover MCU with Arm® Cortex® Cores</li> <li>• <b>i.MX8</b>: i.MX 8 Family – Arm® Cortex®-A53, Cortex-A72, Virtualization, Vision, 3D Graphics, 4K Video</li> </ul>
Isolated Gate Driver	<ul style="list-style-type: none"> <li>• <b>GD3100</b>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>
Wireless Platform	<ul style="list-style-type: none"> <li>• <b>K32W041AM-A</b>: K32W041AM/A: High Performance, Secure and Low-Power MCU for Zigbee®, Thread™ and Bluetooth® LE 5.0 with High Tx Power Option</li> <li>• <b>K32W061_41</b>: K32W061/41: High-Performance, Secure and Ultra-Low-Power MCU for Zigbee®, Thread™, and Bluetooth® LE 5.0 with Built-In NFC Option</li> <li>• <b>IW416</b>: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution</li> <li>• <b>OL2385AHN</b>: Low-Power Multi-Channel UHF RF Wireless Platform</li> </ul>
PMIC	<ul style="list-style-type: none"> <li>• <b>PF5020</b>: Multi-Channel (5) PMIC for Automotive Applications – 4 High Power and 1 Low Power, Fit for ASIL B Safety Level</li> </ul>
Secure Element	<ul style="list-style-type: none"> <li>• <b>SE050</b>: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT Security with High Flexibility</li> </ul>
Aux PSU	<ul style="list-style-type: none"> <li>• <b>TEA1833LTS</b>: GreenChip SMPS Control IC</li> </ul>
Watch Dog MCU	<ul style="list-style-type: none"> <li>• <b>KL0x</b>: Kinetis® KL0x-48 MHz, Entry-Level Ultra-Low Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core</li> <li>• <b>LPC8N04</b>: Low-Cost Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core</li> </ul>
Gate Driver	<ul style="list-style-type: none"> <li>• <b>GD3100</b>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>
UART to I2C /SPI Bridge	<ul style="list-style-type: none"> <li>• <b>SC18IM704</b>: UART to I²C-Bus Bridge</li> <li>• <b>SC18IS606</b>: I²C-Bus to SPI Bridge</li> <li>• <b>SC18IS604</b>: SPI to I²C-Bus Bridge</li> </ul>
USB (CC Logic, Load and Signal Switch)	<ul style="list-style-type: none"> <li>• <b>NX5P3090UK</b>: USB PD and Type-C Current-Limited Power Switch</li> <li>• <b>NX3P1108UK</b>: Logic-Controlled High-Side Power Switch</li> <li>• <b>NX20P0477</b>: USB Type-C CC Smart Protection</li> <li>• <b>NX3DV221</b>: High-Speed USB 2.0 Switch with Enable</li> <li>• <b>NX3DV642GU</b>: Three-Lane High-Speed MIPI-Compatible Switch</li> <li>• <b>NX5L2750CGU</b>: Analog Switch with Negative Swing Audio Capability</li> <li>• <b>PTN5150</b>: CC Logic for USB Type-C Applications</li> </ul>
System Management	<ul style="list-style-type: none"> <li>• <b>PCA9555A</b>: Low-Voltage 16-Bit I²C-Bus I/O Port with Interrupt and Weak Pull-Up</li> <li>• <b>PCAL6408A</b>: Low-Voltage Translating, 8-Bit I²C-Bus/SMBus I/O Expander</li> <li>• <b>PCAL6416A</b>: Low-Voltage Translating 16-Bit I²C-Bus/SMBus I/O Expander</li> <li>• <b>NTS0104</b>: Dual-Supply Translating Transceiver (Open-Drain, Auto-Direction Sensing)</li> <li>• <b>NTB0104</b>: Dual-Supply Translating Transceiver (Auto-Direction Sensing, Three-State)</li> <li>• <b>PCA9306</b>: Dual Bidirectional I²C-Bus and SMBus Voltage-Level Translator</li> <li>• <b>PCA9561</b>: Quad 6-Bit Multiplexed I²C-Bus EEPROM DIP Switch</li> </ul>
CAN TX/RX	<ul style="list-style-type: none"> <li>• <b>TJA1152</b>: Secure HS-CAN Transceiver with Standby Mode</li> </ul>

# Central inverter Block Diagram

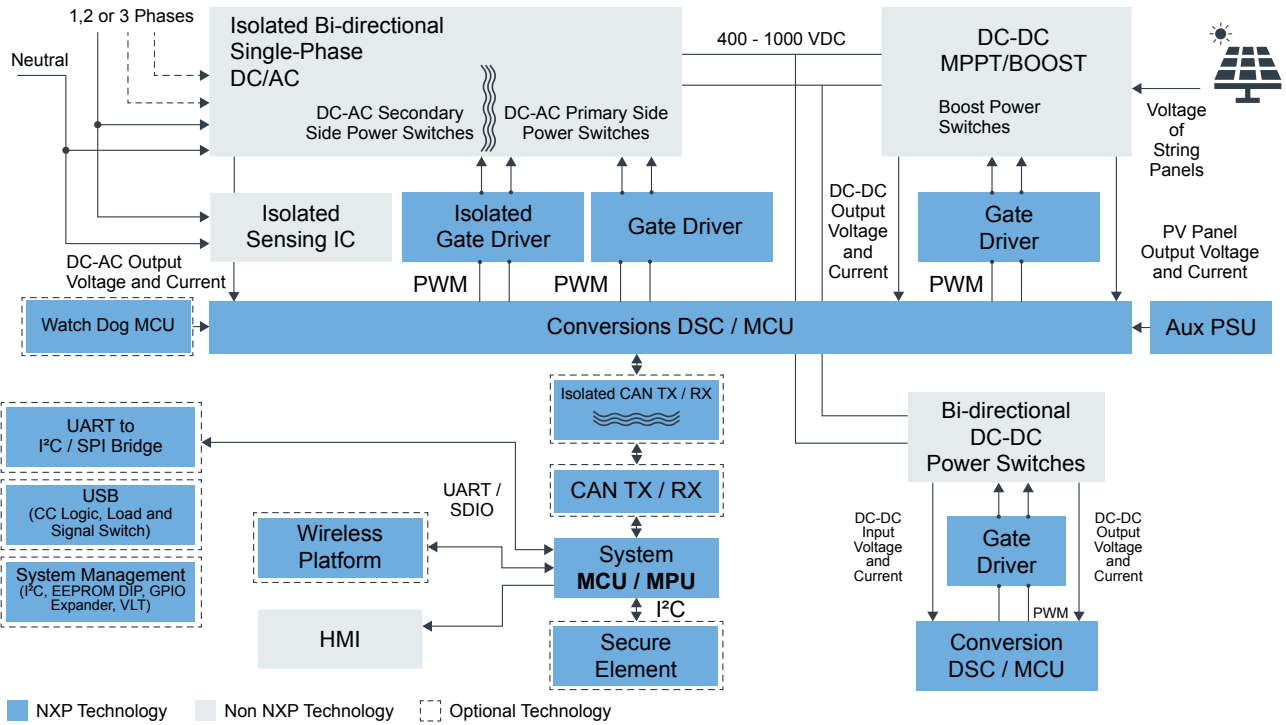


## Recommended Products for Central inverter

<p>Conversion DSC / MCU</p>	<ul style="list-style-type: none"> <li>• <a href="#">MCX A13x, 14x, 15x MCUs with Arm® Cortex® M33, Scalable Device Options, Low Power and Intelligent Peripherals</a></li> <li>• <a href="#">MCX-N94X-N54X: MCX N94x/54x Highly Integrated Multicore MCUs with On-Chip Accelerators, Intelligent Peripherals and Advanced Security</a></li> <li>• <a href="#">KV4x: Kinetis KV4x-168 MHz, High Performance Motor / Power Conversion MCUs based on Arm® Cortex®-M4</a></li> <li>• <a href="#">MC56F83xxx: Performance Level Digital Signal Controllers, USB FS OTG, CAN FD</a></li> </ul>
<p>System MCU / MPU</p>	<ul style="list-style-type: none"> <li>• <a href="#">i.MX-RT1020: i.MX RT1020: Crossover MCU with Arm® Cortex®-M7</a></li> <li>• <a href="#">i.MX-RT1060: i.MX RT1060: Crossover MCU with Arm® Cortex®-M7</a></li> <li>• <a href="#">i.MX-RT1170: i.MX RT1170: 1 GHz Crossover MCU with Arm® Cortex® Cores</a></li> <li>• <a href="#">i.MX8: i.MX 8 Family – Arm® Cortex®-A53, Cortex-A72, Virtualization, Vision, 3D Graphics, 4K Video</a></li> </ul>

Isolated Gate Driver	<ul style="list-style-type: none"> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>
Wireless Platform	<ul style="list-style-type: none"> <li>• <a href="#">K32W041AM-A</a>: K32W041AM/A: High Performance, Secure and Low-Power MCU for Zigbee®, Thread™ and Bluetooth® LE 5.0 with High Tx Power Option</li> <li>• <a href="#">K32W061_41</a>: K32W061/41: High-Performance, Secure and Ultra-Low-Power MCU for Zigbee®, Thread™, and Bluetooth® LE 5.0 with Built-In NFC Option</li> <li>• <a href="#">IW416</a>: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution</li> <li>• <a href="#">OL2385AHN</a>: Low-Power Multi-Channel UHF RF Wireless Platform</li> </ul>
PMIC	<ul style="list-style-type: none"> <li>• <a href="#">PF5020</a>: Multi-Channel (5) PMIC for Automotive Applications – 4 High Power and 1 Low Power, Fit for ASIL B Safety Level</li> </ul>
Secure Element	<ul style="list-style-type: none"> <li>• <a href="#">SE050</a>: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT Security with High Flexibility</li> </ul>
Aux PSU	<ul style="list-style-type: none"> <li>• <a href="#">TEA1833LTS</a>: GreenChip SMPS Control IC</li> </ul>
UART to I2C/SPI Bridge	<ul style="list-style-type: none"> <li>• <a href="#">SC18IM704</a>: UART to I²C-Bus Bridge</li> <li>• <a href="#">SC18IS606</a>: I²C-Bus to SPI Bridge</li> <li>• <a href="#">SC18IS604</a>: SPI to I²C-Bus Bridge</li> </ul>
USB	<ul style="list-style-type: none"> <li>• <a href="#">NX5P3090UK</a>: USB PD and Type-C Current-Limited Power Switch</li> <li>• <a href="#">NX3P1108UK</a>: Logic-Controlled High-Side Power Switch</li> <li>• <a href="#">NX20P0477</a>: USB Type-C CC Smart Protection</li> <li>• <a href="#">NX3DV221</a>: High-Speed USB 2.0 Switch with Enable</li> <li>• <a href="#">NX3DV642GU</a>: Three-Lane High-Speed MIPI-Compatible Switch</li> <li>• <a href="#">NX5L2750CGU</a>: Analog Switch with Negative Swing Audio Capability</li> <li>• <a href="#">PTN5150</a>: CC Logic for USB Type-C Applications</li> </ul>
System Management	<ul style="list-style-type: none"> <li>• <a href="#">PCA9555A</a>: Low-Voltage 16-Bit I²C-Bus I/O Port with Interrupt and Weak Pull-Up</li> <li>• <a href="#">PCAL6408A</a>: Low-Voltage Translating, 8-Bit I²C-Bus/SMBus I/O Expander</li> <li>• <a href="#">PCAL6416A</a>: Low-Voltage Translating 16-Bit I²C-Bus/SMBus I/O Expander</li> <li>• <a href="#">NTS0104</a>: Dual-Supply Translating Transceiver (Open-Drain, Auto-Direction Sensing)</li> <li>• <a href="#">NTB0104</a>: Dual-Supply Translating Transceiver (Auto-Direction Sensing, Three-State)</li> <li>• <a href="#">PCA9306</a>: Dual Bidirectional I²C-Bus and SMBus Voltage-Level Translator</li> <li>• <a href="#">PCA9561</a>: Quad 6-Bit Multiplexed I²C-Bus EEPROM DIP Switch</li> </ul>
Gate Driver	<ul style="list-style-type: none"> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>

## Hybrid String Inverter Block Diagram



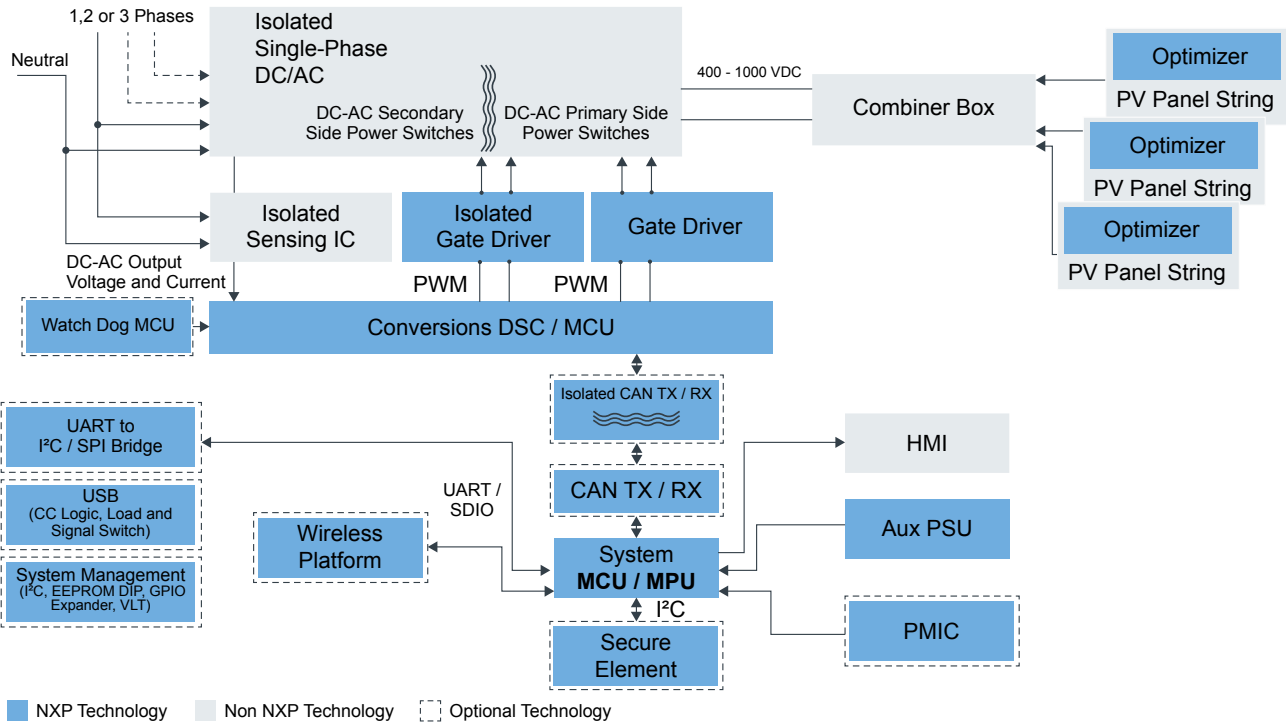
### Recommended Products for Hybrid String Inverter

Conversion DSC / MCU	<ul style="list-style-type: none"> <li>• <a href="#">MCX A13x, 14x, 15x MCUs with Arm® Cortex® M33, Scalable Device Options, Low Power and Intelligent Peripherals</a></li> <li>• <a href="#">MCX-N94X-N54X: MCX N94x/54x Highly Integrated Multicore MCUs with On-Chip Accelerators, Intelligent Peripherals and Advanced Security</a></li> <li>• <a href="#">KV4x: Kinetis KV4x-168 MHz, High Performance Motor / Power Conversion MCUs based on Arm® Cortex®-M4</a></li> <li>• <a href="#">MC56F83xxx: Performance Level Digital Signal Controllers, USB FS OTG, CAN FD</a></li> </ul>
System MCU / MPU	<ul style="list-style-type: none"> <li>• <a href="#">i.MX-RT1020: i.MX RT1020: Crossover MCU with Arm® Cortex®-M7</a></li> <li>• <a href="#">i.MX-RT1060: i.MX RT1060: Crossover MCU with Arm® Cortex®-M7</a></li> <li>• <a href="#">i.MX-RT1170: i.MX RT1170: 1 GHz Crossover MCU with Arm® Cortex® Cores</a></li> <li>• <a href="#">i.MX8: i.MX 8 Family – Arm® Cortex®-A53, Cortex-A72, Virtualization, Vision, 3D Graphics, 4K Video</a></li> </ul>

Isolated Gate Driver	<ul style="list-style-type: none"> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>
Wireless Platform	<ul style="list-style-type: none"> <li>• <a href="#">K32W041AM-A</a>: K32W041AM/A: High Performance, Secure and Low-Power MCU for Zigbee<sup>®</sup>, Thread<sup>™</sup> and Bluetooth<sup>®</sup> LE 5.0 with High Tx Power Option</li> <li>• <a href="#">K32W061_41</a>: K32W061/41: High-Performance, Secure and Ultra-Low-Power MCU for Zigbee<sup>®</sup>, Thread<sup>™</sup>, and Bluetooth<sup>®</sup> LE 5.0 with Built-In NFC Option</li> <li>• <a href="#">IW416</a>: 2.4/5 GHz Dual-Band 1x1 Wi-Fi<sup>®</sup> 4 (802.11n) + Bluetooth<sup>®</sup> 5.2 Solution</li> <li>• <a href="#">OL2385AHN</a>: Low-Power Multi-Channel UHF RF Wireless Platform</li> </ul>
PMIC	<ul style="list-style-type: none"> <li>• <a href="#">PF5020</a>: Multi-Channel (5) PMIC for Automotive Applications – 4 High Power and 1 Low Power, Fit for ASIL B Safety Level</li> </ul>
Secure Element	<ul style="list-style-type: none"> <li>• <a href="#">SE050</a>: EdgeLock<sup>®</sup> SE050: Plug and Trust Secure Element Family – Enhanced IoT Security with High Flexibility</li> </ul>
Aux PSU	<ul style="list-style-type: none"> <li>• <a href="#">TEA1833LTS</a>: GreenChip SMPS Control IC</li> </ul>
Watch Dog MCU	<ul style="list-style-type: none"> <li>• <a href="#">KL0x</a>: Kinetis<sup>®</sup> KL0x-48 MHz, Entry-Level Ultra-Low Power Microcontrollers (MCUs) based on Arm<sup>®</sup> Cortex<sup>®</sup>-M0+ Core</li> <li>• <a href="#">LPC8N04</a>: Low-Cost Microcontrollers (MCUs) based on Arm<sup>®</sup> Cortex<sup>®</sup>-M0+ Core</li> </ul>
UART to I2C/SPI Bridge	<ul style="list-style-type: none"> <li>• <a href="#">SC18IM704</a>: UART to I<sup>2</sup>C-Bus Bridge</li> <li>• <a href="#">SC18IS606</a>: I<sup>2</sup>C-Bus to SPI Bridge</li> <li>• <a href="#">SC18IS604</a>: SPI to I<sup>2</sup>C-Bus Bridge</li> </ul>
USB	<ul style="list-style-type: none"> <li>• <a href="#">NX5P3090UK</a>: USB PD and Type-C Current-Limited Power Switch</li> <li>• <a href="#">NX3P1108UK</a>: Logic-Controlled High-Side Power Switch</li> <li>• <a href="#">NX20P0477</a>: USB Type-C CC Smart Protection</li> <li>• <a href="#">NX3DV221</a>: High-Speed USB 2.0 Switch with Enable</li> <li>• <a href="#">NX3DV642GU</a>: Three-Lane High-Speed MIPI-Compatible Switch</li> <li>• <a href="#">NX5L2750CGU</a>: Analog Switch with Negative Swing Audio Capability</li> <li>• <a href="#">PTN5150</a>: CC Logic for USB Type-C Applications</li> </ul>
System Management	<ul style="list-style-type: none"> <li>• <a href="#">PCA9555A</a>: Low-Voltage 16-Bit I<sup>2</sup>C-Bus I/O Port with Interrupt and Weak Pull-Up</li> <li>• <a href="#">PCAL6408A</a>: Low-Voltage Translating, 8-Bit I<sup>2</sup>C-Bus/SMBus I/O Expander</li> <li>• <a href="#">PCAL6416A</a>: Low-Voltage Translating 16-Bit I<sup>2</sup>C-Bus/SMBus I/O Expander</li> <li>• <a href="#">NTS0104</a>: Dual-Supply Translating Transceiver (Open-Drain, Auto-Direction Sensing)</li> <li>• <a href="#">NTB0104</a>: Dual-Supply Translating Transceiver (Auto-Direction Sensing, Three-State)</li> <li>• <a href="#">PCA9306</a>: Dual Bidirectional I<sup>2</sup>C-Bus and SMBus Voltage-Level Translator</li> <li>• <a href="#">PCA9561</a>: Quad 6-Bit Multiplexed I<sup>2</sup>C-Bus EEPROM DIP Switch</li> </ul>
Gate Driver	<ul style="list-style-type: none"> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>

## Distributed String Inverter Block Diagram



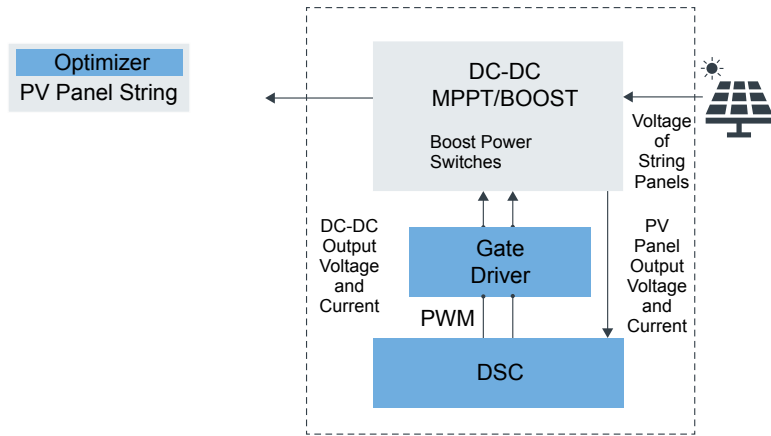


### Recommended Products for Distributed String Inverter

Conversion DSC / MCU	<ul style="list-style-type: none"> <li>• <a href="#">MCX A13x, 14x, 15x MCUs with Arm® Cortex® M33, Scalable Device Options, Low Power and Intelligent Peripherals</a></li> <li>• <a href="#">MCX-N94X-N54X</a>: MCX N94x/54x Highly Integrated Multicore MCUs with On-Chip Accelerators, Intelligent Peripherals and Advanced Security</li> <li>• <a href="#">i.MX-RT1170</a>: i.MX RT1170: 1 GHz Crossover MCU with Arm® Cortex® Cores</li> </ul>
Optimizer DCS	<ul style="list-style-type: none"> <li>• <a href="#">MC56F80xxx</a>: DSCs with Integrated FPU and Trigonometric Math Engine with OPAMP and Quadrature Decoder</li> <li>• <a href="#">LPC8N04</a>: Low-Cost Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core</li> </ul>
System MCU/MPU	<ul style="list-style-type: none"> <li>• <a href="#">i.MX8</a>: i.MX 8 Family – Arm® Cortex®-A53, Cortex-A72, Virtualization, Vision, 3D Graphics, 4K Video</li> <li>• <a href="#">i.MX93</a>: i.MX 93 Applications Processor Family – Arm® Cortex®-A55, ML Acceleration, Power Efficient MPU</li> <li>• <a href="#">i.MX-RT1170</a>: i.MX RT1170: 1 GHz Crossover MCU with Arm® Cortex® Cores</li> <li>• <a href="#">i.MX-RT1060</a>: i.MX RT1060: Crossover MCU with Arm® Cortex®-M7</li> <li>• <a href="#">i.MX-RT1020</a>: i.MX RT1020: Crossover MCU with Arm® Cortex®-M7</li> </ul>

Isolated Gate Driver	<ul style="list-style-type: none"> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>
Wireless Platform	<ul style="list-style-type: none"> <li>• <a href="#">OL2385AHN</a>: Low-Power Multi-Channel UHF RF Wireless Platform</li> <li>• <a href="#">IW416</a>: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 4 (802.11n) + Bluetooth® 5.2 Solution</li> <li>• <a href="#">K32W061_41</a>: K32W061/41: High-Performance, Secure and Ultra-Low-Power MCU for Zigbee®, Thread™, and Bluetooth® LE 5.0 with Built-In NFC Option</li> <li>• <a href="#">K32W041AM-A</a>: K32W041AM/A: High Performance, Secure and Low-Power MCU for Zigbee®, Thread™ and Bluetooth® LE 5.0 with High Tx Power Option</li> </ul>
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Secure Element	<ul style="list-style-type: none"> <li>• <a href="#">SE050</a>: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT Security with High Flexibility</li> <li>• <a href="#">EDGELOCK-A5000</a>: EdgeLock® A5000 Plug and Trust Secure Authenticator: Authentication Made Secure, Scalable and Easy</li> </ul>
Watch Dog MCU	<ul style="list-style-type: none"> <li>• <a href="#">KL0x</a>: Kinetis® KL0x-48 MHz, Entry-Level Ultra-Low Power Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core</li> <li>• <a href="#">LPC8N04</a>: Low-Cost Microcontrollers (MCUs) based on Arm® Cortex®-M0+ Core</li> </ul>
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USB (CC Logic, Load and Signal Switch)	<ul style="list-style-type: none"> <li>• <a href="#">NX5P3090UK</a>: USB PD and Type-C Current-Limited Power Switch</li> <li>• <a href="#">NX3P1108UK</a>: Logic-Controlled High-Side Power Switch</li> <li>• <a href="#">NX20P0477</a>: USB Type-C CC Smart Protection</li> <li>• <a href="#">NX3DV221</a>: High-Speed USB 2.0 Switch with Enable</li> <li>• <a href="#">NX3DV642GU</a>: Three-Lane High-Speed MIPI-Compatible Switch</li> <li>• <a href="#">NX5L2750CGU</a>: Analog Switch with Negative Swing Audio Capability</li> <li>• <a href="#">PTN5150</a>: CC Logic for USB Type-C Applications</li> </ul>
System Management	<ul style="list-style-type: none"> <li>• <a href="#">PCA9555A</a>: Low-Voltage 16-Bit I²C-Bus I/O Port with Interrupt and Weak Pull-Up</li> <li>• <a href="#">PCAL6408A</a>: Low-Voltage Translating, 8-Bit I²C-Bus/SMBus I/O Expander</li> <li>• <a href="#">PCAL6416A</a>: Low-Voltage Translating 16-Bit I²C-Bus/SMBus I/O Expander</li> <li>• <a href="#">NTS0104</a>: Dual-Supply Translating Transceiver (Open-Drain, Auto-Direction Sensing)</li> <li>• <a href="#">NTB0104</a>: Dual-Supply Translating Transceiver (Auto-Direction Sensing, Three-State)</li> <li>• <a href="#">PCA9306</a>: Dual Bidirectional I²C-Bus and SMBus Voltage-Level Translator</li> <li>• <a href="#">PCA9561</a>: Quad 6-Bit Multiplexed I²C-Bus EEPROM DIP Switch</li> </ul>
Gate Driver	<ul style="list-style-type: none"> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>
Aux PSU	<ul style="list-style-type: none"> <li>• <a href="#">TEA2208T</a>: Full Wave Active Bridge Rectifier Controller</li> <li>• <a href="#">TEA2209T</a>: Active Bridge Rectifier Controller</li> <li>• <a href="#">TEA2206T</a>: Active Bridge Rectifier Controller</li> <li>• <a href="#">TEA1708T</a>: GreenChip X Capacitor Discharge IC</li> <li>• <a href="#">TEA19361T</a>: GreenChip SMPS Primary Side Control IC with QR/DCM Operation</li> <li>• <a href="#">TEA19362T</a>: GreenChip SMPS Primary Side Control IC with Fixed Frequency Operation</li> <li>• <a href="#">TEA19363LT</a>: GreenChip SMPS Primary Side Control IC with QR/DCM Operation and Active x-Capacitor Discharge</li> <li>• <a href="#">TEA19363T</a>: GreenChip SMPS Primary Side Control IC with QR/DCM Operation and X-Capacitor Discharge</li> </ul>
Isolated CAN TX/RX	<ul style="list-style-type: none"> <li>• <a href="#">TJA1052IT</a>: Galvanically-Isolated High-Speed CAN Transceiver</li> <li>• <a href="#">TJF1052IT</a>: Galvanically-Isolated High-Speed CAN Transceiver</li> </ul>
CAN TX/RX	<ul style="list-style-type: none"> <li>• <a href="#">TJA1052IT</a>: Galvanically-Isolated High-Speed CAN Transceiver</li> <li>• <a href="#">TJF1052IT</a>: Galvanically-Isolated High-Speed CAN Transceiver</li> </ul>

## Optimizer Block Diagram



■ NXP Technology   
 ■ Non NXP Technology   
  Optional Technology

### Recommended Products for Optimizer

Optimizer DCS	<ul style="list-style-type: none"> <li>• <a href="#">MC56F80xx</a>: DSCs with Integrated FPU and Trigonometric Math Engine with OPAMP and Quadrature Decoder</li> <li>• <a href="#">LPC8N04</a>: Low-Cost Microcontrollers (MCUs) based on Arm<sup>®</sup> Cortex<sup>®</sup>-M0+ Core</li> </ul>
Gate Driver	<ul style="list-style-type: none"> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> </ul>

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**Note:** The information on this document is subject to change without notice.

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