

Amphenol

COMMUNICATIONS SOLUTIONS

Minitek127[®] Product Presentation

May 2023

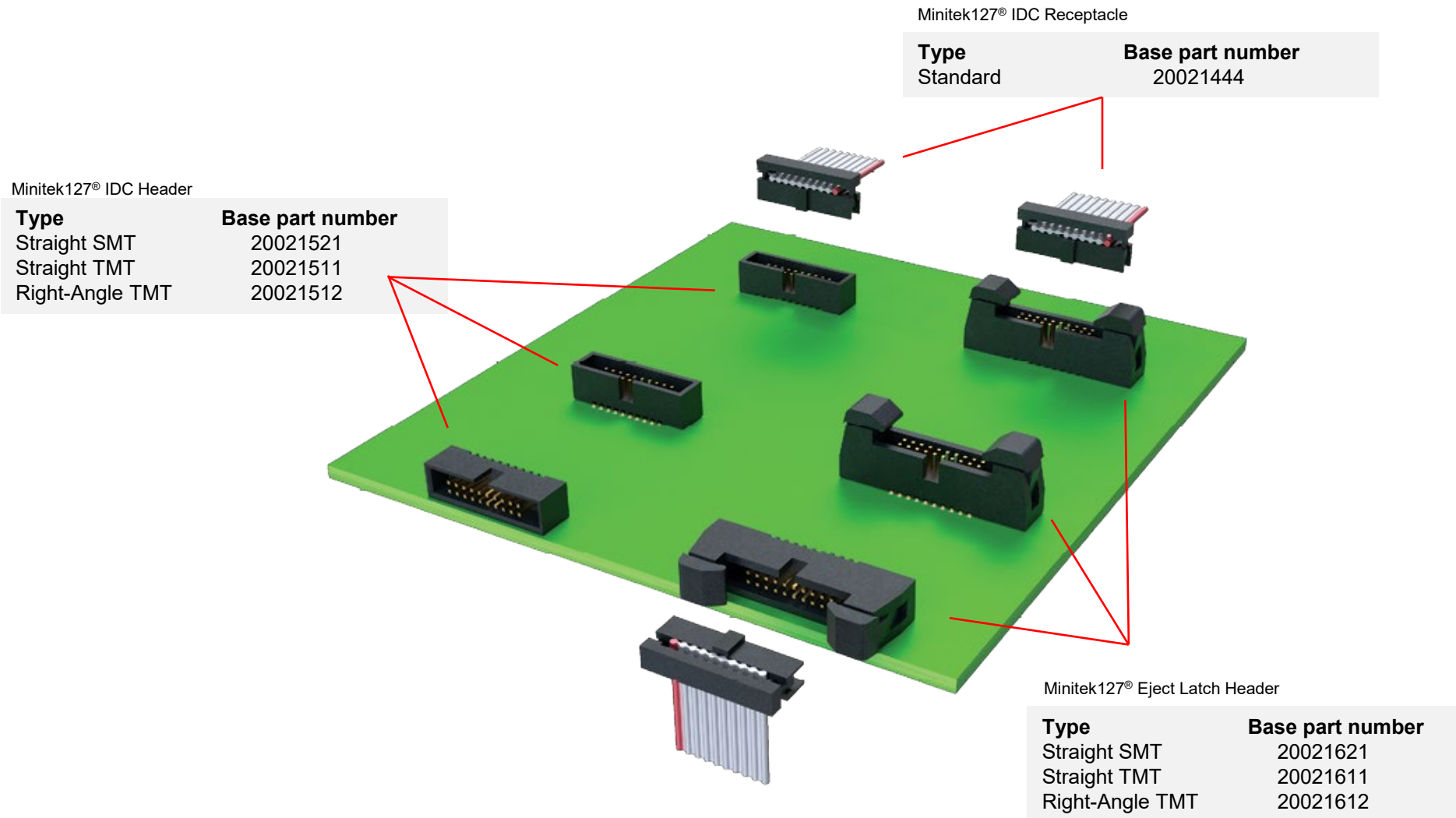
 **FCi Basics**



- Minitek127® is an extensive modular connector family on 1.27mm pitch which covers **board-to-board** and **ribbon cable-to-board** solutions
- Minitek127® comprises **PCB receptacles; IDC receptacles, unshrouded, shrouded and eject-latch headers** with straight and right angle, surface mount and through hole configurations and up to 100 positions
- Minitek127® comes in several standard selective gold plated versions ranging from 0.76Au to Gold Flash to **support applications in a wide range of environments**
- **Minitek127® is ideal for ‘demanding applications’**, where specifications and performance matters, like Communications, IT/Datacom, Medical, Industrial & Instrumentation and Automotive markets

Features	Benefits
Industry proven, modular connector system	One connector family covers multiple board to board and IDC to board connection needs
Space saving 1.27mm pitch	40% less board space compared with 2.00mm
Lowest profile eject latch header	Meets your specific design requirements
Lowest coplanarity at 0.1mm	Facilitates efficient and cost effective automatic placement
0.5mm square drawn wire pin	Provides four smooth mating surfaces
Dimensional stable, high performance plastics	Withstands higher operating temperatures and supports reflow soldering processes
Wide variety of customized stacking headers	Meeting specific system architecture requirements

Minitek127® - IDC to Board Product Overview



Minitek127[®] - IDC Receptacle Specifications

Material

- Housing : High Temperature Thermoplastic
- Flammability : UL94V-0
- Terminal: Copper Alloy
- Plating: Gold or GXT over nickel

Environmental

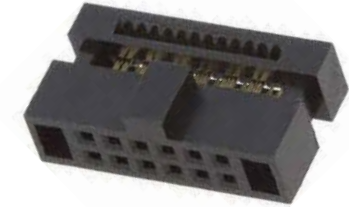
- Operating Temperature: -40°C to +105°C

Electric Performance

- Current rating: up to 1A continuous
- Contact resistance: 30mΩ max.
- Insulation resistance : 100 MΩ min
- Contact dielectric withstanding voltage: 500V rms
- Voltage rating: 125V AC

Mechanical Performance

- Durability: 100 mating cycles
- Mating force: 2.2N/Pin Max
- Unmating force: 0.2N/Pin Min
- Contact retention force: Male 2.94N/Pin Min Female 1.47N/Pin Min



Minitek127[®] - IDC Headers Specifications

Material

- Housing : High Temperature Thermoplastic
- Flammability : UL94V-0
- Terminal: Copper Alloy
- Plating: Gold or GXT over nickel

Environmental

- Operating Temperature: -40°C to +105°C

Electric Performance

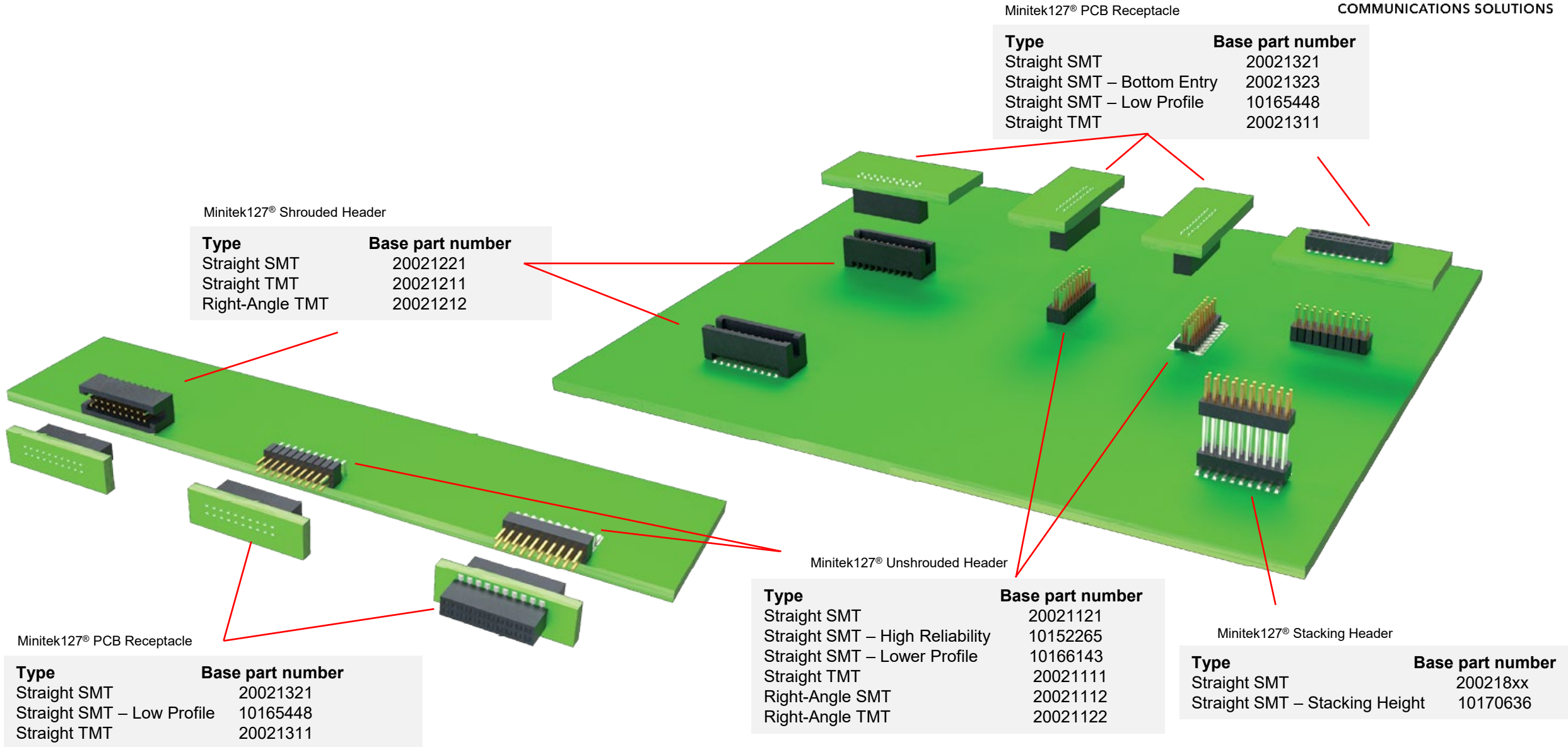
- Current rating: up to 1A continuous
- Contact resistance: 30mΩ max.
- Insulation resistance : 100 MΩ min
- Contact dielectric withstanding voltage: 500V rms
- Voltage rating: 125V AC

Mechanical Performance

- Durability: 100 mating cycles



Minitek127® - Board to Board Product Overview



Minitek127[®] - Stacking Height Matrix

	Surface Mount		Through Hole	
Mating Height	6mm - 8mm	8mm - 12mm	6.9mm	9.5mm – 15.5mm
Product Mix	Standard Header and PCB Receptacle	Stacking Header and standard PCB Receptacle	Standard Header and PCB Receptacle	Stacking Header and standard PCB Receptacle
Receptacle PN	20021321	20021321	20021311	20021311
Header PN	20021121	10170636	20021111	2002181x; 2002182x

Minitek127[®] - PCB Receptacles and Headers Specifications

Material

- Housing : High Temperature Thermoplastic
- Flammability : UL94V-0
- Terminal: Copper Alloy
- Plating: Gold or GXT over nickel

Environmental

- Operating Temperature: -55°C to +125°C

Electric Performance

- Current rating: 1A
- Insulation resistance : 1000 M Ω min
- Contact dielectric withstanding voltage: 500V rms

Mechanical Performance

- Mating cycles (durability): 100 - Gold
- Insertion force gold finish contact: 2.2 N
- Withdrawal force (min) gold finish contact: 0.2 N
- Contact retention force: Male 5N/Pin Min, Female 3N/Pin Min



Minitek127® - Target Applications



- Industrial Automation
- Instrumentation
- Measurement Equipment
- Vending Machines
- Motion Control



- Medical Imaging Systems
- Servers
- Communication Equipment
- Storage Equipment
- Network Systems



- Electronic Control Systems
- Onboard Charging
- Interior lighting



Minitek127[®] - Additional Information

- Minitek127[®] - [Datasheets](#)
- Minitek127[®] - [Landing Page - Board to Board](#)
- Minitek127[®] - [Landing Page - IDC Cable to Board](#)
- Minitek127[®] - [Product Specification](#)