

# Bundles



Bundles

| REFERENCE                    | DESCRIPTION  | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) |
|------------------------------|--|-------------------------------|-----------------|-------------------|----------------------------|
| 05-OPRVIDACEU-WF26800643T    | Open Rack v1 Dual AC - EU + x20 Winterfell 2x Xeon E5-2680v2 64GB 3TB                      | September 2019                | 1 year          | 3 years           | \$19,990                   |
| 05-OPRVIDACEU-WF2680064D525G | Open Rack v1 Dual AC - EU + x20 Winterfell 2x Xeon E5-2680v2 64GB 525 GB SSD Crucial Mx300 | September 2019                | 1 year          | 3 years           | \$25,990                   |
| 05-OPRVIDACUS-WF26800643T    | Open Rack v1 Dual AC - US + x20 Winterfell 2x Xeon E5-2680v2 64GB 3TB                      | September 2019                | 1 year          | 3 years           | \$19,990                   |
| 05-OPRVIDACUS-WF2680064D525G | Open Rack v1 Dual AC - US + x20 Winterfell 2x Xeon E5-2680v2 64GB 525 GB SSD Crucial Mx300 | September 2019                | 1 year          | 3 years           | \$25,990                   |
| 05-OPRV1EU-WF26800643T       | Open Rack v1 - EU + x20 Winterfell 2x Xeon E5-2680v2 64GB 3TB                              | September 2019                | 1 year          | 3 years           | \$19,990                   |
| 05-OPRV1EU-WF2680064D525G    | Open Rack v1 - EU + x20 Winterfell 2x Xeon E5-2680v2 64GB 525 GB SSD Crucial Mx300         | September 2019                | 1 year          | 3 years           | \$25,990                   |
| 05-OPRV1US-WF26800643T       | Open Rack v1 - US + x20 Winterfell 2x Xeon E5-2680v2 64GB 3TB                              | September 2019                | 1 year          | 3 years           | \$19,990                   |
| 05-OPRV1US-WF2680064D525G    | Open Rack v1 - US + x20 Winterfell 2x Xeon E5-2680v2 64GB 525 GB SSD Crucial Mx300         | September 2019                | 1 year          | 3 years           | \$25,990                   |



Infrastructure

# Triplet (AC/DC)



|                          |   |
|--------------------------|---|
| <b>DIMENSIONS</b>        | 1800x2500x1067 mm (WxHxD)   |
| <b>POWER INPUT</b>       | AC: 380V/32A (3P+N+G) or 277v/20A (3P+G) - DC: 48V (54V max) - 275A |
| <b>POWERSHELF COUNT</b>  | 0   |
| <b>PSU</b>               | 0   |
| <b>PSUPERPOWER SHELF</b> | 0   |
| <b>USABLE OU</b>         | N/A   |
| <b>MAX SERVER COUNT</b>  | 180   |
| <b>MAX POWER DRAWN</b>   | 63kW  |
| <b>PACKAGING</b>         | Raw   |
| <b>DOORS AND PANELS</b>  | No  |
| <b>WEIGHT</b>            | 350 kgs   |
| <b>WARRANTY</b>          | 1 year  |

| REFERENCE | DESCRIPTION       | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) |
|-----------|-------------------|-------------------------------|-----------------|-------------------|----------------------------|
| 01-TPREU  | Triplet Rack - EU | January 2019                  | 1 year          | 3 years           | \$499                      |
| 01-TPRUS  | Triplet Rack - US | January 2019                  | 1 year          | 3 years           | \$499                      |

## Options

| REFERENCE          | DESCRIPTION                                  | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) | PURPOSE      |
|--------------------|--|-------------------------------|-----------------|-------------------|----------------------------|--------------|
| 06-RJ45            | RJ45 wire kit (20 units multiple length)     | September 2019                | 1 year          | 3 years           | \$79                       | Spare        |
| 06-SFP10G          | SFP+ 10G wire kit (20 units multiple length) | September 2019                | 1 year          | 3 years           | \$139                      | Spare        |
| 06-TPRPDU          | Triplet rack PDU                             | September 2019                | 1 year          | 3 years           | \$39                       | Spare        |
| 06-TPRPDUFUSE      | Fuse for triplet rack PDU                    | September 2019                | 1 year          | 3 years           | \$19                       | Spare        |
| 06-USPWRPLUG       | US power plug for PDU                        | September 2019                | 1 year          | 3 years           | \$25                       | Add-On       |
| 06-EUPWRPLUG       | EU power plug for PDU                        | September 2019                | 1 year          | 3 years           | \$29                       | Add-On       |
| 06-AUPWRPLUG       | AU power plug for PDU                        | September 2019                | 1 year          | 3 years           | \$139                      | Add-On       |
| 06-USPUDUCORD      | US PDU power cable (3m)                      | September 2019                | 1 year          | 3 years           | \$39                       | Add-On       |
| 06-EUPUDUCORD      | EU PDU power cable (3m)                      | September 2019                | 1 year          | 3 years           | \$49                       | Add-On       |
| 06-RAILKIT         | Rail kit                                     | September 2019                | 1 year          | 3 years           | \$19                       | Spare        |
| 06-SWITCHSHLF      | Shelf for switch                             | September 2019                | 1 year          | 3 years           | \$49                       | Spare/Add-On |
| 06-C15toC14PWRCORD | Power cord C15 to C14                        | September 2019                | 1 year          | 3 years           | \$12                       | Add-On       |

# OpenRack V1 (AC/DC)



|                            |   |
|----------------------------|---|
| <b>DIMENSIONS</b>          | 600x2100x1067 mm (WxHxD)  |
| <b>POWER INPUT</b>         | AC: 380V/32A (3P+N+G) or 277V/20A (3P+G) - DC: 48V (54V max) - 275A |
| <b>POWERSHELF COUNT</b>    | 3   |
| <b>PSU</b>                 | 700W - 277V/48V to 12V DC   |
| <b>PSU PER POWER SHELF</b> | 7 (6+1)   |
| <b>USABLE OU</b>           | 30  |
| <b>MAX SERVER COUNT</b>    | 45  |
| <b>MAX POWER DRAWN</b>     | 12kW  |
| <b>PACKAGING</b>           | Raw / Palet / Crate   |
| <b>DOORS AND PANELS</b>    | No  |
| <b>WEIGHT</b>              | 350 kgs   |
| <b>WARRANTY</b>            | 1 year  |

| REFERENCE  | DESCRIPTION       | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) |
|------------|-------------------|-------------------------------|-----------------|-------------------|----------------------------|
| 01-OPRV1EU | Open Rack v1 - EU | March 2019                    | 1 year          | 3 years           | \$499                      |
| 01-OPRV1US | Open Rack v1 - US | March 2019                    | 1 year          | 3 years           | \$499                      |

## Options

| REFERENCE           | DESCRIPTION                                  | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) | PURPOSE        |
|---------------------|--|-------------------------------|-----------------|-------------------|----------------------------|----------------|
| 06-RJ45             | RJ45 wire kit (20 units multiple length)     | September 2019                | 1 year          | 3 years           | \$79                       | Spare          |
| 06-SFP10G           | SFP+ 10G wire kit (20 units multiple length) | September 2019                | 1 year          | 3 years           | \$139                      | Spare          |
| 06-700PS            | 700W AC power supply                         | September 2019                | 1 year          | 3 years           | \$79                       | Spare          |
| 06-PWRSHFOPRV1      | V1 powershell                                | September 2019                | 1 year          | 3 years           | \$149                      | Spare          |
| 06-ACPDUOPRV1       | Left AC PDU for Open v1 rack (277V / 16A)    | September 2019                | 1 year          | 3 years           | \$49                       | Spare          |
| 06-DCPDUOPRV1       | Right DC PDU for Open v1 rack (48V / 175A)   | September 2019                | 1 year          | 3 years           | \$79                       | Spare          |
| 06-ACPDUFUSE        | Fuse for AC PDU                              | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-DCPDUFUSE        | Fuse for DC PDU                              | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-USPWRPLUG        | US power plug for PDU                        | September 2019                | 1 year          | 3 years           | \$25                       | Add-On         |
| 06-EUPWRPLUG        | EU power plug for PDU                        | September 2019                | 1 year          | 3 years           | \$29                       | Add-On         |
| 06-AUPWRPLUG        | AU power plug for PDU                        | September 2019                | 1 year          | 3 years           | \$139                      | Add-On         |
| 06-USPDUCORD        | US PDU power cable (3m)                      | September 2019                | 1 year          | 3 years           | \$39                       | Add-On         |
| 06-EUPDUCORD        | EU PDU power cable (3m)                      | September 2019                | 1 year          | 3 years           | \$49                       | Add-On         |
| 06-WFSVRSHELF       | Winterfell Server shelf                      | September 2019                | 1 year          | 3 years           | \$39                       | Spare          |
| 06-PWRSHFOPRV1FUSE  | Fuse for open v1 powershell                  | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-RAILKIT          | Rail kit                                     | September 2019                | 1 year          | 3 years           | \$35                       | Spare          |
| 06-SWITCHSHLF       | Shelf for switch                             | September 2019                | 1 year          | 3 years           | \$49                       | Spare / Add-On |
| 06-C15TOLS25PWRCORD | Power cord C15 to LS-25 1m                   | September 2019                | 1 year          | 3 years           | \$25                       | Add-On         |
| 06-VENTKITSMML      | Venting kit small shutter                    | September 2019                | 1 year          | 3 years           | \$19                       | Add-On         |
| 06-VENTKITLRG       | Venting kit large shutter                    | September 2019                | 1 year          | 3 years           | \$19                       | Add-On         |

# OpenRack V1 (AC/AC)



|                            |                                      |
|----------------------------|--------------------------------------|
| <b>DIMENSIONS</b>          | 600x2100x1067 mm (WxHxD)             |
| <b>POWER INPUT</b>         | 380V/32A (3P+N+G) or 208v/30A (3P+G) |
| <b>POWERSHELF COUNT</b>    | 3                                    |
| <b>PSU</b>                 | 2100W - 200/230v to 12V DC           |
| <b>PSU PER POWER SHELF</b> | 6 (3+3)                              |
| <b>USABLE OU</b>           | 30                                   |
| <b>MAX SERVER COUNT</b>    | 45                                   |
| <b>MAX POWER DRAWN</b>     | 18kW                                 |
| <b>PACKAGING</b>           | Raw / Palet / Crate                  |
| <b>DOORS AND PANELS</b>    | No                                   |
| <b>WEIGHT</b>              | 350 kgs                              |
| <b>WARRANTY</b>            | 1 year                               |

| REFERENCE   | DESCRIPTION            | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) |
|-------------|------------------------|-------------------------------|-----------------|-------------------|----------------------------|
| 01-OPRDACEU | Open Rack Dual AC - EU | January 2019                  | 1 year          | 3 years           | \$499                      |
| 01-OPRDACUS | Open Rack Dual AC - US | January 2019                  | 1 year          | 3 years           | \$499                      |

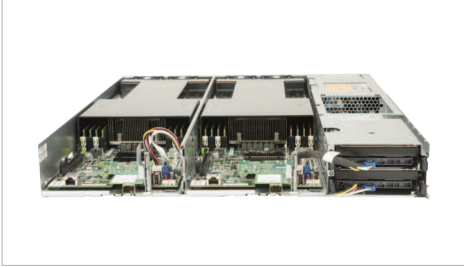
## Options

| REFERENCE          | DESCRIPTION                                  | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) | PURPOSE        |
|--------------------|--|-------------------------------|-----------------|-------------------|----------------------------|----------------|
| 06-RJ45            | RJ45 wire kit (20 units multiple length)     | July 2019                     | 1 year          | 3 years           | \$79                       | Spare          |
| 06-SFP10G          | SFP+ 10G wire kit (20 units multiple length) | July 2019                     | 1 year          | 3 years           | \$139                      | Spare          |
| 06-2100PS          | 2100W AC power supply                        | July 2019                     | 1 year          | 3 years           | \$79                       | Spare          |
| 06-PWRSHFDAC       | Dual AC powershell                           | July 2019                     | 1 year          | 3 years           | \$149                      | Spare          |
| 06-ACPDUDACLFT     | Left AC PDU for Dual AC rack (208V / 24A)    | July 2019                     | 1 year          | 3 years           | \$109                      | Spare          |
| 06-ACPDUDACRGT     | Right AC PDU for Dual AC rack (208V / 24A)   | July 2019                     | 1 year          | 3 years           | \$109                      | Spare          |
| 06-ACPDUFUSE       | Fuse for Dual AC PDU                         | July 2019                     | 1 year          | 3 years           | \$19                       | Spare          |
| 06-USPWRPLUG       | US power plug for PDU                        | July 2019                     | 1 year          | 3 years           | \$25                       | Add-On         |
| 06-EUPWRPLUG       | EU power plug for PDU                        | July 2019                     | 1 year          | 3 years           | \$29                       | Add-On         |
| 06-AUPWRPLUG       | AU power plug for PDU                        | July 2019                     | 1 year          | 3 years           | \$139                      | Add-On         |
| 06-USPDUCORD       | US PDU power cable (3m)                      | July 2019                     | 1 year          | 3 years           | \$39                       | Add-On         |
| 06-EUPDUCORD       | EU PDU power cable (3m)                      | July 2019                     | 1 year          | 3 years           | \$49                       | Add-On         |
| 06-WFSVRSHLF       | Winterfell Server shelf                      | July 2019                     | 1 year          | 3 years           | \$39                       | Spare          |
| 06-PWRSHFDACFUSE   | Fuse for Dual AC powershell                  | July 2019                     | 1 year          | 3 years           | \$19                       | Spare          |
| 06-RAILKIT         | Rail kit                                     | July 2019                     | 1 year          | 3 years           | \$35                       | Spare          |
| 06-SWITCHSHLF      | Shelf for switch                             | July 2019                     | 1 year          | 3 years           | \$49                       | Spare / Add-On |
| 06-C15TOC14PWRCORD | Power cord C15 to C14                        | July 2019                     | 1 year          | 3 years           | \$25                       | Add-On         |
| 06-VENTKITSML      | Venting kit small shutter                    | July 2019                     | 1 year          | 3 years           | \$19                       | Add-On         |
| 06-VENTKITLRG      | Venting kit large shutter                    | July 2019                     | 1 year          | 3 years           | \$19                       | Add-On         |

# Servers



# Windmill



|                           |   |
|---------------------------|---|
| <b>FORMFACTOR</b>         | Triplet Rack or OpenRack v1 with adaptors   |
| <b>PROCESSOR</b>          | Xeon v1/ v2 family  |
| <b>CHIPSET</b>            | C600  |
| <b>MEMORY</b>             | DDR3-ECC @1333Mhz   |
| <b>NETWORK</b>            | 1 RJ45 - 1Gbps shared with remote Management  |
| <b>STORAGE</b>            | Either x1 LFF drive   |
| <b>STORAGE CONTROLLER</b> | Intel C600 SATA3 controller (6Gbps)   |
| <b>CONNECTORS</b>         | x1 RJ45 - x1 OCP v1 Mezzanine slot - dual x8 PCI gen3 expansion slot - x16 DIMM slots |
| <b>MAX MEMORY</b>         | 256GB   |
| <b>POWER</b>              | Shared 700W PSU with secondary node   |
| <b>FANS</b>               | High efficiency 80mm fans   |
| <b>REMOTE MANAGEMENT</b>  | Intel ME through RJ45   |
| <b>WARRANTY</b>           | 1 year  |

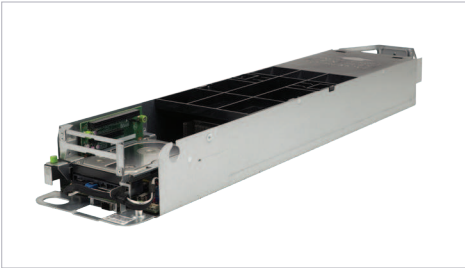
| REFERENCE        | DESCRIPTION  | CPU       | MEMORY CAPACITY | STORAGE   | NETWORK            | ESTIMATED END OF AVAILABILITY | STANDARD LIST PRICE (US\$) |
|------------------|--|-----------|-----------------|-----------|--------------------|-------------------------------|----------------------------|
| 02-WM26600643T   | Windmill QCT Double Xeon E5-2660 / 64GB RAM / 3TB HDD    | Xeon 2660 | 64GB            | 3TB       | IPMI + 10Gbps SFP+ | September 2019                | \$649                      |
| 02-WM26601283T   | Windmill QCT Double Xeon E5-2660 / 128GB RAM / 3TB HDD   | Xeon 2660 | 128GB           | 3TB       | IPMI + 10Gbps SFP+ | September 2019                | \$949                      |
| 02-WM26602563T   | Windmill QCT Double Xeon E5-2660 / 256GB RAM / 3TB HDD   | Xeon 2660 | 256GB           | 3TB       | IPMI + 10Gbps SFP+ | September 2019                | \$1,590                    |
| 02-WM2660064525G | Windmill QCT Double Xeon E5-2660 / 64GB RAM / 525GB SSD  | Xeon 2660 | 64GB            | 525GB SSD | IPMI + 10Gbps SFP+ | September 2019                | \$890                      |
| 02-WM2660128525G | Windmill QCT Double Xeon E5-2660 / 128GB RAM / 525GB SSD | Xeon 2660 | 128GB           | 525GB SSD | IPMI + 10Gbps SFP+ | September 2019                | \$1,190                    |
| 02-WM2660256525G | Windmill QCT Double Xeon E5-2660 / 256GB RAM / 525GB SSD | Xeon 2660 | 256GB           | 525GB SSD | IPMI + 10Gbps SFP+ | September 2019                | \$1,690                    |
| 02-BAREBONE-WM   | Windmill barebone QTC                                    | N/A       | N/A             | N/A       | IPMI + 10Gbps SFP+ | September 2019                | \$120                      |

## Options

| REFERENCE                          | DESCRIPTION  | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) | PURPOSE        |
|------------------------------------|--|-------------------------------|-----------------|-------------------|----------------------------|----------------|
| 06-RAM8GB                          | 8GB RAM 1333Mhz - DDR3 - ECC                                     | September 2019                | 1 year          | 3 years           | \$39                       | Spare / Add-On |
| 06-RAM16GB                         | 16GB RAM 1333Mhz DDR3 - ECC                                      | September 2019                | 1 year          | 3 years           | \$75                       | Spare / Add-On |
| 06-RAM64GBKIT                      | 64GB RAM 1333Mhz - DDR3 - ECC kit                                | September 2019                | 1 year          | 3 years           | \$299                      | Spare / Add-On |
| 06-SSD525GB                        | 525GB SSD Crucial MX300  | September 2019                | 1 year          | 3 years           | \$139                      | Spare / Add-On |
| 06-SSD4TB                          | 4TB SSD Samsung EVO Pro  | September 2019                | 1 year          | 3 years           | \$1,399                    | Spare / Add-On |
| 03-3TBHDD                          | 3TB HDD  | September 2019                | 1 year          | 3 years           | \$59                       | Spare / Add-On |
| 06-WMHDDSUP                        | Windmill HDD support   | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-SSDSNGADPT                      | Adapter single SSD 2.5" to 3.5" (New) Ref: Ioydock MB882SP-1S-3B | September 2019                | 1 year          | 3 years           | \$59                       | Add-On         |
| 06-XEON2660                        | CPU Xeon 2660  | September 2019                | 1 year          | 3 years           | \$99                       | Spare          |
| 06-WMSATA                          | Windmill SATA wire (20cm)  | September 2019                | 1 year          | 3 years           | \$25                       | Spare          |
| 06-IPMI10GBSINGLE                  | IPMI + 10Gbps SFP+ OCP Mellanox board single port                | September 2019                | 1 year          | 3 years           | \$39                       | Spare / Add-On |
| 06-MCX342A-XCPN CONNECTX®-3 PRO EN | IPMI + 10Gbps SFP+ OCP Mellanox board double port                | September 2019                | 1 year          | 3 years           | \$239                      | Spare / Add-On |
| 06-WMPCleRISER                     | Windmill Riser PCIe board  | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-WMFANKIT                        | Windmill fan kit   | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-WMHEATSINK                      | Windmill heatsink  | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-WMPLSTCOVER                     | Windmill plastic cover   | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |



# Winterfell



|                           |   |
|---------------------------|---|
| <b>FORM FACTOR</b>        | OpenRack v1   |
| <b>PROCESSOR</b>          | Xeon v2 family  |
| <b>CHIPSET</b>            | C600  |
| <b>MEMORY</b>             | DDR3-ECC @1333Mhz   |
| <b>NETWORK</b>            | 1 RJ45 - 1Gbps shared with remote Management  |
| <b>STORAGE</b>            | Either x1 LFF drive or x2 SFF   |
| <b>STORAGE CONTROLLER</b> | Intel C600 SATA3 controller (6Gbps)   |
| <b>CONNECTORS</b>         | x1 RJ45 - x1 OCP v1 Mezzanine slot - dual x8 PCI gen3 expansion slot - x16 DIMM slots |
| <b>MAX MEMORY</b>         | 512 GB  |
| <b>POWER</b>              | 12v DC from OCP Rack bus bar  |
| <b>FANS</b>               | High efficiency 80mm fans   |
| <b>REMOTEMANAGEMENT</b>   | Intel ME through RJ45   |
| <b>WARRANTY</b>           | 1 year  |

| REFERENCE         | DESCRIPTION  | CPU         | MEMORY CAPACITY | STORAGE   | NETWORK            | ESTIMATED END OF AVAILABILITY | STANDARD LIST PRICE (US\$) |
|-------------------|--|-------------|-----------------|-----------|--------------------|-------------------------------|----------------------------|
| 02-WF26800643T    | Winterfell QCT Double Xeon E5-2680v2 / 64GB RAM / 3TB HDD    | Xeon 2680v2 | 64GB            | 3TB       | IPMI + 10Gbps SFP+ | September 2019                | \$899                      |
| 02-WF26801283T    | Winterfell QCT Double Xeon E5-2680v2 / 128GB RAM / 3TB HDD   | Xeon 2680v2 | 128GB           | 3TB       | IPMI + 10Gbps SFP+ | September 2019                | \$1,199                    |
| 02-WF26802563T    | Winterfell QCT Double Xeon E5-2680v2 / 256GB RAM / 3TB HDD   | Xeon 2680v2 | 256GB           | 3TB       | IPMI + 10Gbps SFP+ | September 2019                | \$1,799                    |
| 02-WF2680064525G  | Winterfell QCT Double Xeon E5-2680v2 / 64GB RAM / 525GB SSD  | Xeon 2680v2 | 64GB            | 525GB SSD | IPMI + 10Gbps SFP+ | September 2019                | \$999                      |
| 02-WF2680128525G  | Winterfell QCT Double Xeon E5-2680v2 / 128GB RAM / 525GB SSD | Xeon 2680v2 | 128GB           | 525GB SSD | IPMI + 10Gbps SFP+ | September 2019                | \$1,399                    |
| 02-WF2680256525G  | Winterfell QCT Double Xeon E5-2680v2 / 256GB RAM / 525GB SSD | Xeon 2680v2 | 256GB           | 525GB SSD | IPMI + 10Gbps SFP+ | September 2019                | \$1,949                    |
| 02-WFBASIC2680064 | Winterfell QCT basic   | Xeon 2680v2 | 64GB            | N/A       | IPMI + 10Gbps SFP+ | September 2019                | \$890                      |
| 02-BAREBONE-WF    | Winterfell QCT barebone                                      | N/A         | N/A             | N/A       | IPMI + 10Gbps SFP+ | September 2019                | \$299                      |

## Options

| REFERENCE                       | DESCRIPTION  | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) | PURPOSE        |
|---------------------------------|--|-------------------------------|-----------------|-------------------|----------------------------|----------------|
| 06-RAM16GB                      | 16GB RAM 1333Mhz - DDR3 - ECC  | September 2019                | 1 year          | 3 years           | \$75                       | Spare / Add-On |
| 06-RAM64GBKIT                   | 64GB RAM 1333Mhz - DDR3 - ECC kit                                    | September 2019                | 1 year          | 3 years           | \$299                      | Spare / Add-On |
| 06-SSD525GB                     | 525GB SSD Crucial MX300  | September 2019                | 1 year          | 3 years           | \$139                      | Spare / Add-On |
| 06-SSD4TB                       | 4TB SSD Samsung EVO Pro  | September 2019                | 1 year          | 3 years           | \$1,399                    | Spare / Add-On |
| 03-3TBHDD                       | 3TB HDD  | September 2019                | 1 year          | 3 years           | \$59                       | Spare / Add-On |
| 06-WFHDDSUP                     | Winterfell HDD support   | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-SSDADPT                      | Adapter double SSD 2.5" to 3.5" (New)<br>Ref: Icydock MB992SK-B V2.0 | September 2019                | 1 year          | 3 years           | \$69                       | Add-On         |
| 06-SSDSNGADPT                   | Adapter single SSD 2.5" to 3.5" (New)<br>Ref: Icydock MB882SP-1S-3B  | September 2019                | 1 year          | 3 years           | \$59                       | Add-On         |
| 06-XEON2680V2                   | CPU Xeon 2680v2  | September 2019                | 1 year          | 3 years           | \$219                      | Spare          |
| 06-WFSATA                       | Winterfell SATA wire   | September 2019                | 1 year          | 3 years           | \$20                       | Spare          |
| 06-IPMI10GBSINGLE               | IPMI + 10Gbps SFP+ OCP Mellanox board single port                    | September 2019                | 1 year          | 3 years           | \$39                       | Spare / Add-On |
| MCX342A-XCPN ConnectX®-3 Pro EN | IPMI + 10Gbps SFP+ OCP Mellanox board double port                    | September 2019                | 1 year          | 3 years           | \$239                      | Spare / Add-On |
| 06-WFPcIeRISER                  | Winterfell Riser PCIe board  | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-WFFANKIT                     | Winterfell fan kit   | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-WFHEATSINK                   | Winterfell heatsink  | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |
| 06-WFPLSTCOVER                  | Winterfell plastic cover   | September 2019                | 1 year          | 3 years           | \$19                       | Spare          |

# Leopard



|                           |  |
|---------------------------|--|
| <b>FORMFACTOR</b>         | OpenRack v1  |
| <b>PROCESSOR</b>          | Xeon v3 family   |
| <b>CHIPSET</b>            | C610   |
| <b>MEMORY</b>             | DDR3-ECC @1867Mhz  |
| <b>NETWORK</b>            | x1 SFP+ - 10Gbps shared with remote management                                 |
| <b>STORAGE</b>            | Either x1 LFF drive or x2 SFF + x1 m.SATA drive                                |
| <b>STORAGE CONTROLLER</b> | Intel C610 SATA3 controller (6Gbps)  |
| <b>CONNECTORS</b>         | x1 OCP v1 Mezzanine slot - x8 and x16 PCI gen3 expansion slot - x16 DIMM slots |
| <b>MAX MEMORY</b>         | 512GB  |
| <b>POWER</b>              | 12v DC from OCP Rack bus bar   |
| <b>FANS</b>               | High efficiency 80mm fans  |
| <b>REMOTE MANAGEMENT</b>  | AMI Megarac PM through SFP+  |
| <b>WARRANTY</b>           | 1 year   |

| REFERENCE        | DESCRIPTION  | CPU         | MEMORY CAPACITY | STORAGE   | NETWORK            | ESTIMATED END OF AVAILABILITY | STANDARD LIST PRICE (US\$) |
|------------------|--|-------------|-----------------|-----------|--------------------|-------------------------------|----------------------------|
| 02-LD2678064120G | Leopard QCT DDR3 Double Xeon E5-2678v3 / 64GB RAM ECC  | Xeon 2678v3 | 64GB            | 120GB SSD | IPMI + 10Gbps SFP+ | January 2020                  | \$1,449                    |
| 02-LD2678128120G | Leopard QCT DDR3 Double Xeon E5-2678v3 / 128GB RAM ECC | Xeon 2678v3 | 128GB           | 120GB SSD | IPMI + 10Gbps SFP+ | January 2020                  | \$1,699                    |
| 02-LD2678256120G | Leopard QCT DDR3 Double Xeon E5-2678v3 / 256GB RAM ECC | Xeon 2678v3 | 256GB           | 120GB SSD | IPMI + 10Gbps SFP+ | January 2020                  | \$2,249                    |
| 02-BAREBONE-LD   | Leopard barebone QCT DDR3                              | N/A         | N/A             | N/A       | IPMI + 10Gbps SFP+ | January 2020                  | \$349                      |

## Options

| REFERENCE                                       | DESCRIPTION  | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE | PURPOSE        |
|---|--|-------------------------------|-----------------|-------------------|---------------------|----------------|
| 06-RAM8GB                                       | 8GB RAM 1333Mhz - DDR3 - ECC                                     | September 2019                | 1 year          | 3 years           | \$39                | Spare / Add-On |
| 06-RAM16GB                                      | 16GB RAM 1333Mhz DDR3 - ECC                                      | September 2019                | 1 year          | 3 years           | \$75                | Spare / Add-On |
| 06-RAM64GBKIT                                   | 64GB RAM 1333Mhz - DDR3 - ECC kit                                | September 2019                | 1 year          | 3 years           | \$299               | Spare / Add-On |
| 06-RAM16GB-HS                                   | 16GB RAM ECC DDR3 @1867Mhz                                       | January 2020                  | 1 year          | 3 years           | \$89                | Spare / Add-On |
| 06-RAM64GBKIT-HS                                | 64GB RAM kit - 4x16GB ECC DDR3 @1867Mhz                          | January 2020                  | 1 year          | 3 years           | \$349               | Spare / Add-On |
| 06-SSD525GB                                     | 525GB SSD Crucial MX300  | September 2019                | 1 year          | 3 years           | \$139               | Spare / Add-On |
| 06-SSD4TB                                       | 4TB SSD Samsung EVO Pro  | September 2019                | 1 year          | 3 years           | \$1,399             | Spare / Add-On |
| 03-3TBHDD                                       | 3TB HDD  | September 2019                | 1 year          | 3 years           | \$59                | Spare / Add-On |
| 06-SSD120GB                                     | 120 GB mSATA SSD   | January 2020                  | 1 year          | 3 years           | \$69                | Spare / Add-On |
| 06-LDHDDSUP                                     | Leopard HDD support  | September 2019                | 1 year          | 3 years           | \$19                | Spare          |
| 06-SSDSNGADPT                                   | Adapter single SSD 2.5" to 3.5" (New) Ref: lcydock MB882SP-1S-3B | September 2019                | 1 year          | 3 years           | \$59                | Add-On         |
| 06-XEON2678V3                                   | CPU Xeon 2678v3  | January 2020                  | 1 year          | 3 years           | \$399               | Spare          |
| 06-WMSATA                                       | Windmill SATA wire (20cm)  | September 2019                | 1 year          | 3 years           | \$20                | Spare          |
| 06-IPMI10GBSINGLE                               | IPMI + 10Gbps SFP+ OCP Mellanox board single port                | September 2019                | 1 year          | 3 years           | \$39                | Spare / Add-On |
| 06-MCX342A-XCPN CONNECTX <sup>®</sup> -3 PRO EN | IPMI + 10Gbps SFP+ OCP Mellanox board double port                | September 2019                | 1 year          | 3 years           | \$239               | Spare / Add-On |
| 06-MCX4121A-ACAT                                | 10/25Gbps Dual SFP28 + Mellanox double port                      | January 2020                  | 1 year          | 3 years           | \$319               | Spare / Add-On |
| 06-MCX4421A-ACAN                                | IPMI + 10/25Gbps Dual SFP28 + OCP Mellanox                       | January 2020                  | 1 year          | 3 years           | \$359               | Spare / Add-On |
| 06-LDPCLERISER                                  | Leopard Riser PCIe board   | January 2020                  | 1 year          | 3 years           | \$19                | Spare          |
| 06-LDFANKIT                                     | Leopard fan kit  | January 2020                  | 1 year          | 3 years           | \$19                | Spare          |
| 06-LDHEATSINK                                   | Leopard heatsink   | January 2020                  | 1 year          | 3 years           | \$19                | Spare          |
| 06-LDPLSTCOVER                                  | Leopard plastic cover  | January 2020                  | 1 year          | 3 years           | \$19                | Spare          |

# Storage



# Knox



|                                 |                          |
|---------------------------------|--------------------------|
| <b>DIMENSIONS</b>               | 20U                      |
| <b>POWER INPUT</b>              | 12v DC                   |
| <b>MAX DISK DRIVES</b>          | 30 LFF                   |
| <b>MAX CONTROLLERS</b>          | 4                        |
| <b>DISK TYPE</b>                | SAS or SATA 6Gbps        |
| <b>UPLINK</b>                   | x4 6Gbps mini SAS uplink |
| <b>MAX POWER DRAWN</b>          | 400W                     |
| <b>EXPANDER CONTROLLER TYPE</b> | LSI 2x28                 |
| <b>HOTPLUG CAPACITY</b>         | YES                      |
| <b>WEIGHT</b>                   | 55kgs                    |
| <b>MAX CAPACITY</b>             | 180TB                    |

| REFERENCE      | DESCRIPTION                                 | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) |
|----------------|---|-------------------------------|-----------------|-------------------|----------------------------|
| 03-KNOX        | Knox + LSI kit + 2SAS wires                 | September 2019                | 1 year          | 3 years           | \$1,190                    |
| 03-3TBHDD      | 3TB hard drive                              | September 2019                | 1 year          | 3 years           | \$59                       |
| 03-KNOX-30-3TB | Knox + LSI kit + 2SAS wires + 30 3TB drives | September 2019                | 1 year          | 3 years           | \$2,590                    |

## Options

| REFERENCE      | DESCRIPTION   | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) | PURPOSE        |
|----------------|---|-------------------------------|-----------------|-------------------|----------------------------|----------------|
| 06-SSD525GB    | 525GB SSD Crucial MX300 (New)                                       | September 2019                | 1 year          | 3 years           | \$139                      | Spare / Add-On |
| 06-SSD4TB      | 4TB SSD Samsung EVO Pro (New)                                       | September 2019                | 1 year          | 3 years           | \$1,399                    | Spare / Add-On |
| 06-SSDSNGADPT  | Adapter Single SSD 2.5" to 3.5" (New)<br>Ref: icydock MB882SP-1S-3B | September 2019                | 1 year          | 3 years           | \$59                       | Add-On         |
| 06-LSIBOARD    | LSI board (ref: 9285CV-8e)  | September 2019                | 1 year          | 3 years           | \$79                       | Spare          |
| 06-SASWIRE     | SAS wire for Knox kit   | September 2019                | 1 year          | 3 years           | \$25                       | Spare          |
| 06-CTRLBOARD   | Controller board  | September 2019                | 1 year          | 3 years           | \$99                       | Spare          |
| 06-KNOX FANKIT | Fan kit   | September 2019                | 1 year          | 3 years           | \$15                       | Spare          |

Network



# Wedge 40



|                               |                            |
|-------------------------------|----------------------------|
| <b>DIMENSIONS</b>             | 1U                         |
| <b>POWER INPUT</b>            | 90-230V                    |
| <b>PORT FORMAT</b>            | QSFP+                      |
| <b>MAX PORTS</b>              | 16                         |
| <b>MAX PORT SPEED</b>         | 40Gbps                     |
| <b>CABLE BREAKOUT SUPPORT</b> | YES - x4 10 Gbps           |
| <b>REMOTE MANAGEMENT</b>      | YES - OpenBMC through RJ45 |
| <b>MAX POWER DRAWN</b>        | 400W                       |
| <b>TESTED SOFTWARE</b>        | ONL + FBOSS                |
| <b>PSU</b>                    | Redundant                  |
| <b>WEIGHT</b>                 | 9kgs                       |

| REFERENCE | DESCRIPTION | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) |
|-----------|-------------|-------------------------------|-----------------|-------------------|----------------------------|
| 04-WDG40  | Wedge-40    | September 2019                | 1 year          | 3 years           | \$499                      |

# Wedge 100



|                               |   |
|-------------------------------|---|
| <b>DIMENSIONS</b>             | 1U  |
| <b>POWER INPUT</b>            | 90-230V                                   |
| <b>PORT FORMAT</b>            | QSFP28 and QSFP+                          |
| <b>MAX PORTS</b>              | 32  |
| <b>MAX PORT SPEED</b>         | 100Gbps                                   |
| <b>CABLE BREAKOUT SUPPORT</b> | YES – x2 50Gbps / x4 25 Gbps / x4 10 Gbps |
| <b>REMOTE MANAGEMENT</b>      | YES – OpenBMC through RJ45                |
| <b>MAX POWER DRAWN</b>        | 400W                                      |
| <b>TESTED SOFTWARE</b>        | ONL + FBOSS                               |
| <b>PSU</b>                    | Redundant                                 |
| <b>WEIGHT</b>                 | 9kgs                                      |

| REFERENCE | DESCRIPTION | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) |
|-----------|-------------|-------------------------------|-----------------|-------------------|----------------------------|
| 04-WDG100 | Wedge-100   | September 2019                | 1 year          | 3 years           | \$599                      |

## Options

| REFERENCE      | DESCRIPTION                                     | ESTIMATED END OF AVAILABILITY | WARRANTY PERIOD | EXTENDED SERVICES | STANDARD LIST PRICE (US\$) | PURPOSE        |
|----------------|---|-------------------------------|-----------------|-------------------|----------------------------|----------------|
| 06-WDGACPWRSUP | AC power supply ( switch Wedge )                | July 2019                     | 1 year          | 3 years           | \$199                      | Spare / Add-On |
| 06-40GTO10G1M  | QSFP+ 40G to 4 x SFP+ 10G breakout cable 1m     | July 2019                     | 1 year          | 3 years           | \$39                       | Add-On         |
| 06-40GTO10G2M  | QSFP+ 40G to 4 x SFP+ 10G breakout cable 2m     | July 2019                     | 1 year          | 3 years           | \$49                       | Add-On         |
| 06-40GTO10G3M  | QSFP+ 40G to 4 x SFP+ 10G breakout cable 3m     | July 2019                     | 1 year          | 3 years           | \$59                       | Add-On         |
| 06-100GTO25G1M | QSFP28 100G to 4 x SFP28 25G breakout cable 1m  | July 2019                     | 1 year          | 3 years           | \$99                       | Add-On         |
| 06-100GTO25G2M | QSFP28 100G to 4 x SFP28 25G breakout cable 2m  | July 2019                     | 1 year          | 3 years           | \$119                      | Add-On         |
| 06-100GTO25G3M | QSFP28 100G to 4 x SFP28 25G breakout cable 3m  | July 2019                     | 1 year          | 3 years           | \$149                      | Add-On         |
| 06-100GTO50G1M | QSFP28 100G to 2 x QSFP28 50G breakout cable 1m | July 2019                     | 1 year          | 3 years           | \$139                      | Add-On         |
| 06-100GTO50G2M | QSFP28 100G to 2 x QSFP28 50G breakout cable 2m | July 2019                     | 1 year          | 3 years           | \$199                      | Add-On         |
| 06-100GTO50G3M | QSFP28 100G to 2 x QSFP28 50G breakout cable 3m | July 2019                     | 1 year          | 3 years           | \$249                      | Add-On         |
| 06-25GTO25G1M  | SFP28 25 to SPF28 25G Mellanox 1m               | January 2020                  | 1 year          | 3 years           | \$59                       | Add-On         |
| 06-25GTO25G2M  | SFP28 25 to SPF28 25G Mellanox 3m               | January 2020                  | 1 year          | 3 years           | \$65                       | Add-On         |
| 06-25GTO25G3M  | SFP28 25 to SPF28 25G Mellanox 3m               | January 2020                  | 1 year          | 3 years           | \$69                       | Add-On         |

# Packaging

| REFERENCE    | DESCRIPTION   | STANDARD LIST PRICE (US\$) |
|--------------|---------------|----------------------------|
| 07-SHIPPING  | Shipping fees | \$1                        |
| 07-PCKGWRAP  | Wrapped       | \$49                       |
| 07-PCKGPAL   | Palett        | \$359                      |
| 07-PCKGCRATE | Crate         | \$749                      |

