

# Ka-Band RF Electronics Products Comparison

General Dynamics SATCOM Technologies is the world's leading designer and producer of high-performance satellite communications products used in earth stations and teleports worldwide. For over 30 years we have provided operators with reliable RF electronics for modern earth stations to close the link. We continuously strive to improve and develop new innovative products to meet the evolving needs of our customers.

## Low Noise Block Converters (LNBs)

|                              |                                                                                                |                                                                                                |
|------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Noise Temperature</b>     | 110K °C                                                                                        | 110K °C                                                                                        |
| <b>Band</b>                  | Ka-Band                                                                                        | Ka-Band                                                                                        |
| <b>Frequency</b>             | 19.20 - 20.20 GHz                                                                              | 20.20 - 21.20 GHz                                                                              |
| <b>Types Available</b>       | Single-Thread, 1:1. 1:2 and designs with Tracking LNAs. Systems include Redundancy Controllers | Single-Thread, 1:1. 1:2 and designs with Tracking LNAs. Systems include Redundancy Controllers |
| <b>Auto-Switch Reference</b> | Internal reference power muted when external reference is present                              | Internal reference power muted when external reference is present                              |
| <b>Model</b>                 | TLNB20000AS.0002                                                                               | TLNB20000AS.0007                                                                               |
| <b>Temperature Range</b>     | -40 °C to +70 °C                                                                               | -40 °C to +70 °C                                                                               |

## Solid State Power BUCs (SSPBs)

|                     |                                                  |
|---------------------|--------------------------------------------------|
| <b>Power, Psat</b>  | 16W                                              |
| <b>Band</b>         | Ka-Band                                          |
| <b>Frequency</b>    | 29.00 - 30.00 GHz                                |
| <b>Applications</b> | Compact, Small Deployable Antennas, SNG and SOTM |

## Block Down Converter (BDCs)

|                          |                           |
|--------------------------|---------------------------|
| <b>Band</b>              | Ka-Band                   |
| <b>Input Frequency</b>   | 20.20 - 21.30 GHz         |
| <b>Output Frequency</b>  | 950 - 2050 MHz            |
| <b>Types Available</b>   | Single-Thread Controllers |
| <b>Temperature Range</b> | -40 °C to +70 °C          |

## Block Up Converter (BUCs)

|                          |                           |
|--------------------------|---------------------------|
| <b>Band</b>              | Ka-Band                   |
| <b>Input Frequency</b>   | 950 - 2050 MHz            |
| <b>Output Frequency</b>  | 17.30 - 18.40 GHz         |
| <b>Types Available</b>   | Single-Thread Controllers |
| <b>Temperature Range</b> | -30 °C to +70 °C          |

## Low Noise Amplifiers (LNAs)

|                          |                                                                                                |                                                                                                |                                                                                                |                                                                                                |                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>Noise Temperature</b> | 110K °C                                                                                        | 110K °C                                                                                        | 120K °C                                                                                        | 120K °C                                                                                        | 120K °C                                                                                        |
| <b>Band</b>              | Ka-Band                                                                                        | Ka-Band                                                                                        | Ka-Band                                                                                        | Ka-Band                                                                                        | Ka-Band                                                                                        |
| <b>Frequency</b>         | 18.20 - 20.20 GHz                                                                              | 20.20 - 21.20 GHz                                                                              | 18.20 - 20.20 GHz                                                                              | 20.20 - 21.20 GHz                                                                              | 17.70 - 21.20 GHz                                                                              |
| <b>Types Available</b>   | Single-Thread, 1:1. 1:2 and designs with Tracking LNAs. Systems include Redundancy Controllers | Single-Thread, 1:1. 1:2 and designs with Tracking LNAs. Systems include Redundancy Controllers | Single-Thread, 1:1. 1:2 and designs with Tracking LNAs. Systems include Redundancy Controllers | Single-Thread, 1:1. 1:2 and designs with Tracking LNAs. Systems include Redundancy Controllers | Single-Thread, 1:1. 1:2 and designs with Tracking LNAs. Systems include Redundancy Controllers |
| <b>Temperature Range</b> | -40 °C to +70 °C                                                                               | -40 °C to +70 °C                                                                               | -40 °C to +70 °C                                                                               | -40 °C to +70 °C                                                                               | -40 °C to +70 °C                                                                               |

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