

Product Update Notification Number: T0001366 Rev A

Date of Issue: March 08, 2022

Product Type: X7

Update Type: New variant for X7 modem with single tuner functionality.

Product Overview

This product update notification¹ provides an overview on the release of a new X7 variant with single tuner functionality. It also provides associated kit number details and additional items that customers need to be aware of when deploying this X7 variant.

Considering the challenges that the supply chain industry is facing for sourcing critical components to support production on modem offerings, ST Engineering iDirect has decided to release a new variant of X7 modem which includes support for only a single tuner. From a product specification standpoint X7 modems include dual tuners to support dual receive functionality. The dual receive functionality is applicable for two potential use cases:

- For mobility deployments to support beam switching (Evolution & Velocity).
- For receiving multicast stream on 2nd receiver (Evolution only).

The current implementation on Evolution platform supports only Make-Before-Break (MBB) beam switching so Evolution customers who have deployed X7 remotes for either fixed or mobile applications can deploy the X7 with single tuner functionality.

The single tuner X7 kit will **NOT** be applicable for customers with the following use cases.

- Mobility deployments to support beam switching in Velocity networks – Velocity networks support MBB beam switching and utilizes the 2nd receiver functionality.
- Evolution customers using multicast functionality through the 2nd receiver.

Modem Kit# Details

Below is the list of current X7 kits and the newly introduced X7 single tuner kit:

Kit Number	Kit Description	Supported Platforms
K0000103-0013	KIT,X7 SATELLITE ROUTER,1GB,W/ +24V POWER SUPPLY,ROHS	Evolution and Velocity
K0000103-0010	KIT,X7 SATELLITE ROUTER,1GB,W/ +24V,+48V POWER SUPPLY,ROHS	Evolution and Velocity
K0000103-0011	KIT,X7 SATELLITE ROUTER,1GB, W/ DC INPUT POWER SUPPLY,ROHS	Evolution and Velocity
K0000274-0001	KIT,X7 SINGLE TUNER ROUTER,1GB,W/ +24V POWER SUPPLY,ROHS	Evolution only

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Evolution Release Compatibility

The X7 single tuner kit has no dependency on Evolution software releases. All current Evolution software releases that support existing X7 variants will support the new X7 variant with single tuner functionality. There are no changes on iVantage clients pertaining to this new variant and customers can continue to configure and deploy this new X7 variant like the current X7 variant to cover their existing use cases.

Notes and Recommendations.

- From a hardware standpoint, we have removed the 2nd tuner component for this new X7 variant and disabled the hardware specific checks to validate the existence of the 2nd tuner component. Customers can refer to the associated kit number to identify whether the unit in their possession has single or dual tuner functionality. You can also validate this from the linux level command line interface using the following command:

```
# cat /proc/board_info/number_of_demods  
1 RX Demod
```

- As indicated in the table above, the new X7 variant will have a separate kit number and is only available in +24V PSU option so it can be easily distinguished in the field.
- Future demand for all X7 (w/+24V PSU) will be met with the new X7 variant, except for the use cases highlighted in the overview section.
- RMA and repair/replace requests for all X7 (w/+24V PSU) variants will be met with the new X7 variant, except for the use cases highlighted in the overview section.

Additional Assistance

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