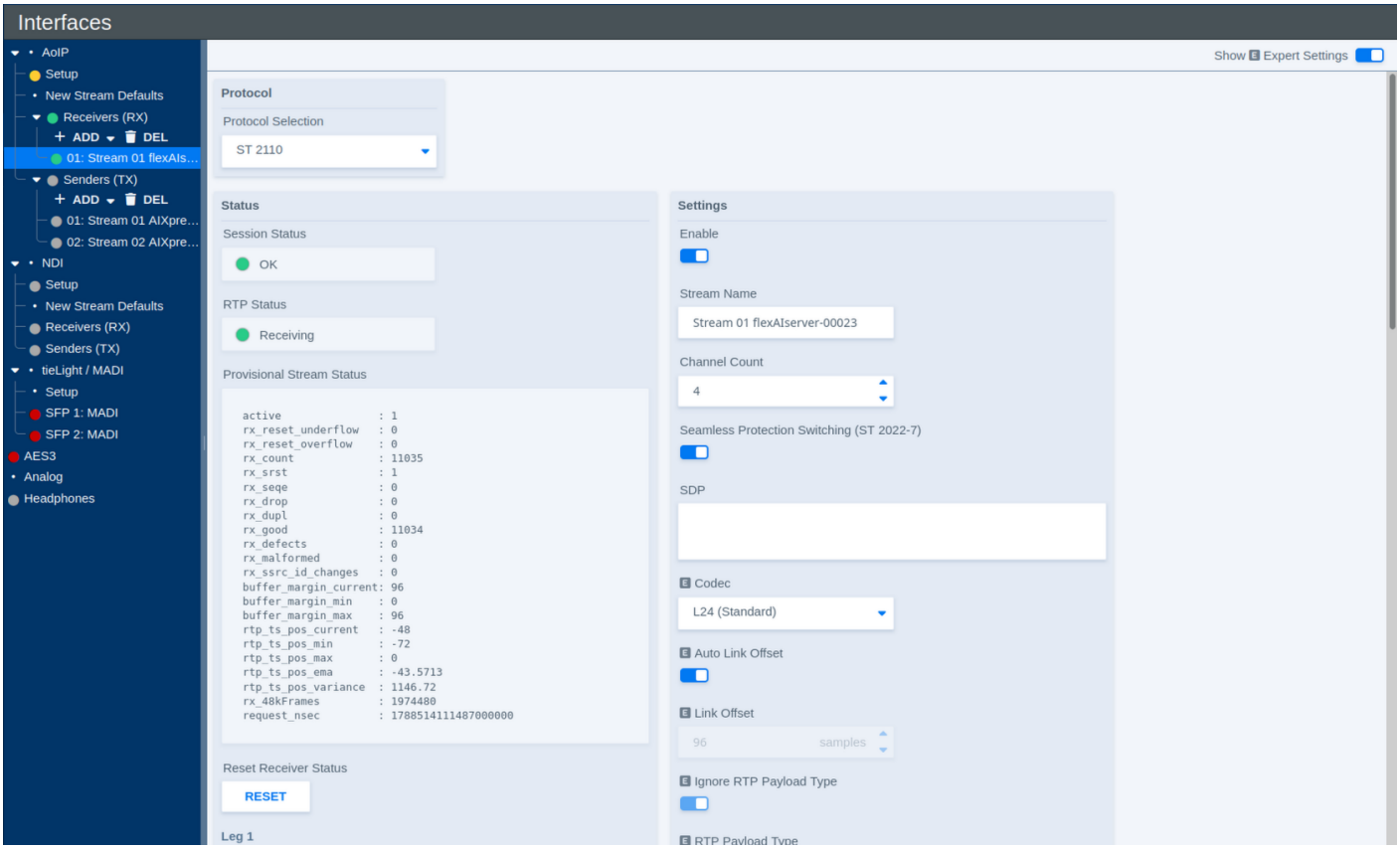
Audio over IP - Receivers

Receivers

The **Receivers (RX)** section under **AoIP** contains the receive streams configured on the flexAI system.

Use **ADD** to create a new receiver. Existing receivers are listed below **Receivers (RX)** and can be selected individually for configuration. Use **DEL** to remove selected receivers.

Some receiver parameters are only visible when **Show Expert Settings** is enabled.



Protocol

Parameter	Values	Default	Description

Protocol Selection	Available AoIP protocols	-	Selects the protocol used by the receiver. The available settings may change depending on the selected protocol.

Status

The **Status** section shows the current operating state of the receiver and its stream legs.

Parameter	Values	Default	Description
Session Status	Status	-	Shows the overall status of the receive session.
RTP Status	Status	-	Shows whether RTP packets are currently being received.
Provisional Stream Status	Diagnostic information	-	Provides detailed receiver statistics and diagnostic information about the incoming RTP stream.
Reset Receiver Status	Button	-	Resets the displayed receiver status and diagnostic counters.
RTP Status – Leg 1	Status	-	Shows the receive status of both stream legs combined.
RTP Status – Leg 2	Status	-	Currently not used

The **Provisional Stream Status** is primarily intended for diagnostics and troubleshooting. For normal operation, the Session and RTP status indicators provide the most relevant overview.

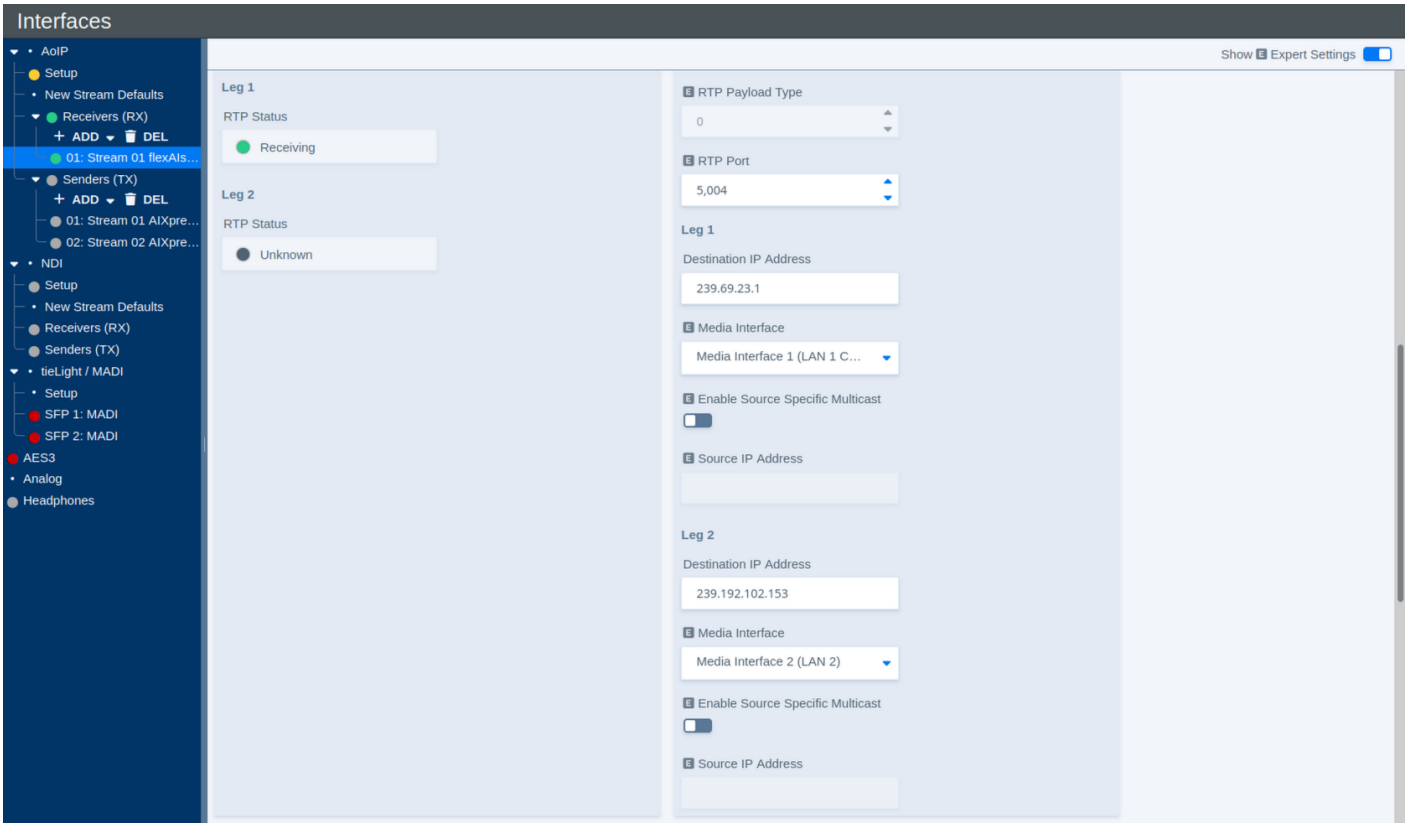
Settings

Parameter	Values	Default	Description
Enable	On / Off	-	Enables or disables the receiver.
Stream Name	Text	-	Defines the name used to identify the receiver within the flexAI system.
Channel Count	Supported channel counts	-	Defines the number of audio channels carried by the receive stream.

Parameter	Values	Default	Description
Seamless Protection Switching (ST 2022-7)	On / Off	-	Enables SMPTE ST 2022-7 seamless protection switching. When enabled, two redundant stream legs can be received over separate network paths.
SDP	SDP data	-	Defines the Session Description Protocol information for the incoming stream. The original SDP provided by the sender can be pasted directly into this field. Alternatively, SDP information can be obtained from a discovered stream.
Codec	Available codecs	-	Defines the expected audio codec or sample format of the incoming stream.
Auto Link Offset	On / Off	-	Automatically applies the Link Offset configured for the corresponding stream type and packet time on the AoIP Setup page.
Link Offset	Delay in samples	-	Defines the fixed receive/playout delay when **Auto Link Offset** is disabled. The delay remains constant for the stream, providing deterministic latency.
Ignore RTP Payload Type	On / Off	-	Defines whether the configured RTP Payload Type is ignored when receiving the stream.
RTP Payload Type	RTP payload type	-	Defines the expected RTP payload type when payload-type checking is used.
RTP Port	Port number	-	Defines the UDP port on which the RTP stream is received.

Pasting the sender's original SDP is often the simplest way to configure a receiver manually, as it transfers the relevant stream parameters in a single step.

Stream Legs



Each receiver can use up to two stream legs. **Leg 1** carries the primary stream. **Leg 2** is used for redundant reception when **ST 2022-7** is enabled.

The following parameters are available for each leg:

Parameter	Values	Default	Description
Destination IP Address	Multicast IP address	-	Defines the multicast destination address from which the receiver joins the stream.
Media Interface	Available Media Interfaces	-	Selects the Media Interface used to receive this stream leg.
Enable Source Specific Multicast	On / Off	-	Enables Source-Specific Multicast (SSM) for this stream leg.
Source IP Address	IP address	-	Defines the expected source address when Source-Specific Multicast is enabled.

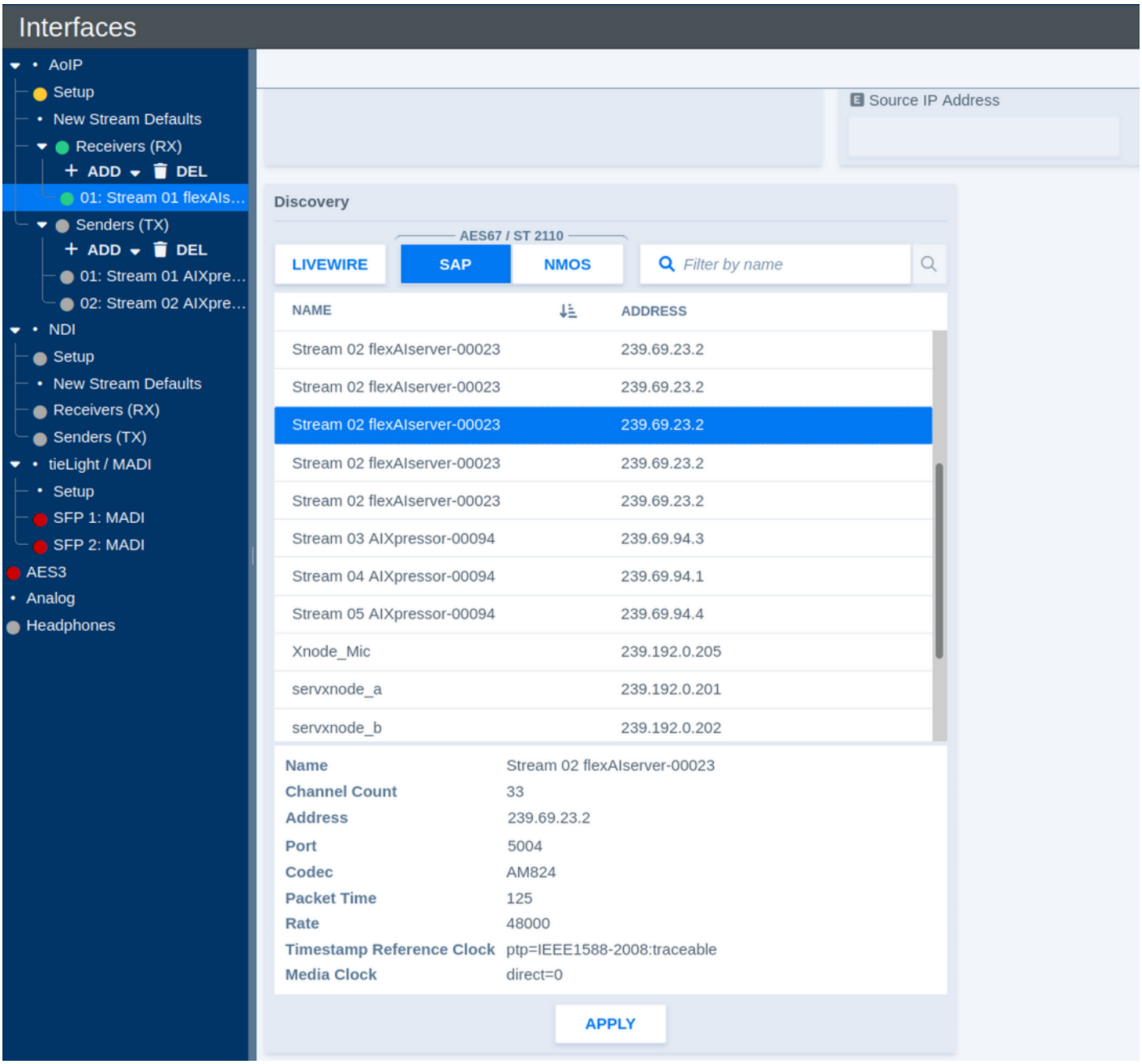
> Each receiver can be assigned individually to one of the available **Media Interfaces**. This allows different receivers, and, with ST 2022-7, individual stream legs, to use separate physical AoIP networks.

> In combination with the internal audio routing, flexAI can also transfer audio between otherwise independent AoIP networks: audio received through one Media Interface can be routed internally and transmitted again through a sender assigned to another Media Interface. This operates at the audio level rather than as a network bridge.

With **Source-Specific Multicast (SSM)** enabled, the receiver joins the multicast stream from the specified source address rather than accepting traffic for the multicast group from any source.

Stream Discovery

The **Discovery** section can be used to find available AoIP streams on the network and apply their parameters to the selected receiver.



Available discovery methods include:

- **Livewire**
- **SAP** for AES67 / ST 2110
- **NMOS**

Use the protocol buttons to select the desired discovery method. The **Filter by name** field can be used to narrow the list of discovered streams.

Select a stream to display the information advertised by the sender. Depending on the protocol, this may include information such as:

- Name
- Channel Count
- Destination Address

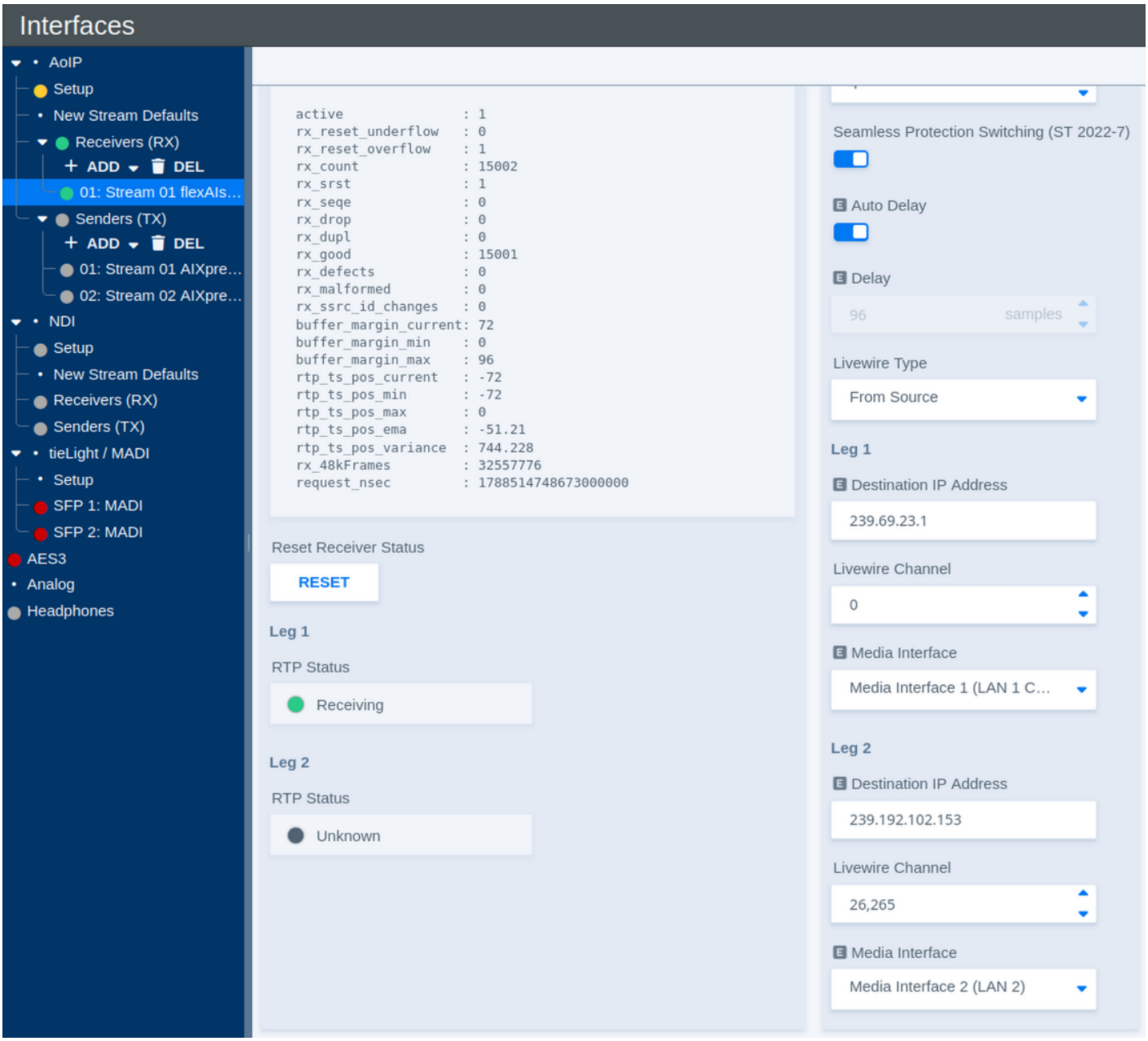
- RTP Port
- Codec
- Packet Time
- Sample Rate
- Timestamp Reference Clock
- Media Clock

Click **Apply** to connect the selected stream with the current receiver.

This provides a convenient alternative to entering the receiver parameters manually and helps ensure that the receiver settings match those advertised by the sender.

Livewire Receiver Settings

When **Livewire** is selected under **Protocol Selection**, some receiver parameters differ from those used for ST 2110.



Parameter	Values	Default	Description
Auto Delay	On / Off	-	Automatically applies the receive delay configured for the corresponding Livewire stream type on the AoIP Setup page.
Delay	Delay in samples	-	Defines the fixed receive/playout delay when **Auto Delay** is disabled. The configured delay remains constant, providing deterministic latency.

Parameter	Values	Default	Description
Livewire Type	Available Livewire types	-	Defines how the Livewire stream is addressed. **To Source** uses the Livewire channel information associated with the source stream.
Destination IP Address – Leg 1	Multicast IP address	-	Shows or defines the multicast destination address used for the first Livewire stream leg.
Livewire Channel – Leg 1	Livewire channel number	-	Defines the Livewire Channel used for the first stream leg. The Livewire Channel identifies the corresponding stream within the Livewire network.
Media Interface – Leg 1	Available Media Interfaces	-	Selects the Media Interface used to receive the first stream leg.
Destination IP Address – Leg 2	Multicast IP address	-	Shows or defines the multicast destination address used for the redundant second stream leg.
Livewire Channel – Leg 2	Livewire channel number	-	Defines the Livewire Channel used for the redundant second stream leg.
Media Interface – Leg 2	Available Media Interfaces	-	Selects the Media Interface used to receive the redundant second stream leg when ST 2022-7 is enabled.

As with other receiver types, **Leg 2** is used for redundant reception when **Seamless Protection Switching (ST 2022-7)** is enabled.

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