



# SETTING COMPOSITE SIGNAL CHARACTERISTICS

## RF FREQUENCY-LINK COMPOSITION

Modify, Enable, and Construct the Composite RF Signal Characteristics by using the **RF-Link Composition** Data Form accessed from the **Setup and Control** pull down.



**SATELLITE ID**   Use CHANNEL assignment mode

Settings apply to specified SVID irrespective of the assigned Hardware Channel

**HARDWARE CHANNEL**   Use CHANNEL assignment mode

Settings apply to any SVID assigned to the specified Hardware Channel (CHECKED)

**Link Composition**

**FREQUENCY-LINK COMPOSITION**

**SATELLITE ID**   Use CHANNEL assignment mode

**FIRMWARE MEMORY MODEL** LEGACY

**L1 Legacy Signals**

ENABLE	C/A	P	DATA
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**L1M Signals**

ENABLE	MNAV	SDS	PA	MUX SCHEME	NAVDATA RATE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Equ. 6.3	200 SPS

**L2 Legacy Signals**

ENABLE	C/A	P	DATA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**L2M Signals**

ENABLE	MNAV	SDS	PA	MUX SCHEME	NAVDATA RATE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Equ. 6.3	200 SPS

**L2C Signals**

ENABLE	DATA
<input type="checkbox"/>	<input type="checkbox"/>

**L5 Signals**

ENABLE	C	DATA
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SA / AS**

**ENABLE**

**Open ChannelCnfgRF1/2**

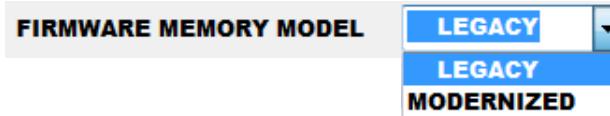
**CANCEL**  **APPLY**

These equations have bearing on overall signal power via the Interplex-Modulation implementation. See this [link](#) for a discussion.

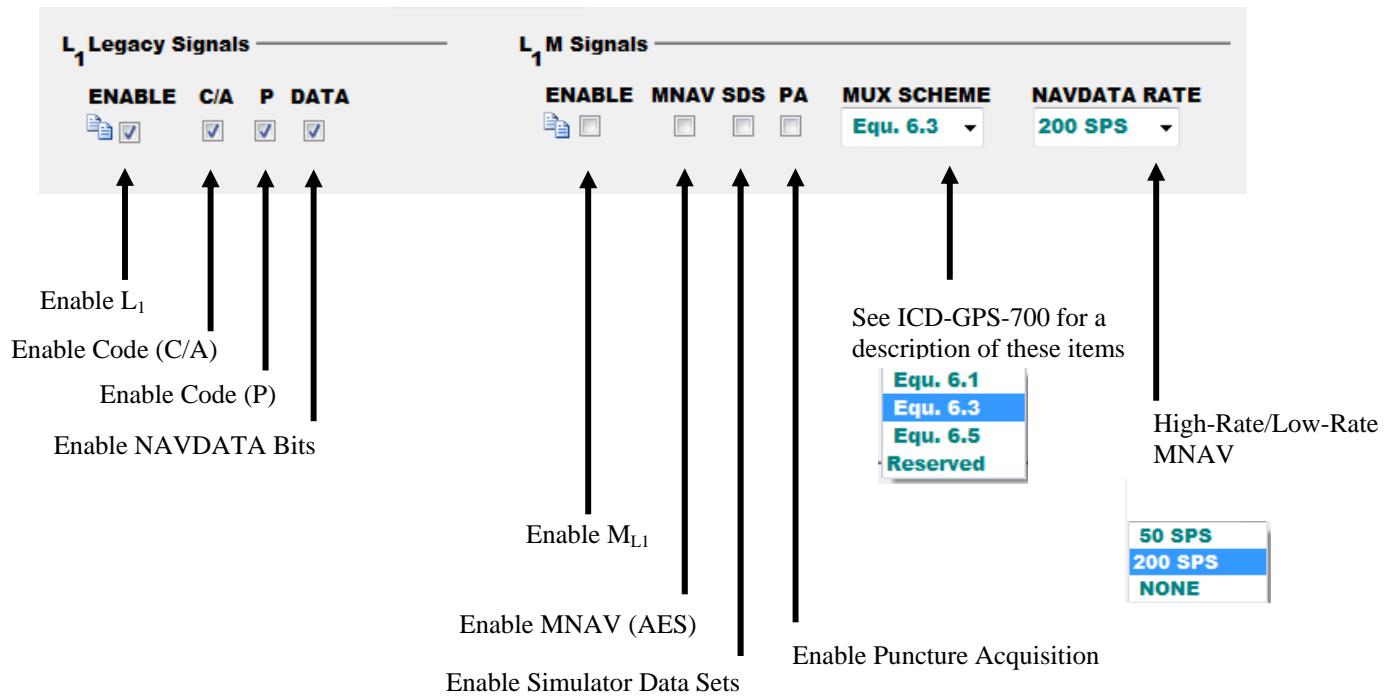
For editing ease, Copies the specified settings to ALL CHANNELS 1-16 [Use Channel Assignment Mode] or the specified SVID to ALL SVID 1-32

Edit Control File directly

To incorporate changes



- For Modernized Systems (M,L<sub>5</sub>), **MODERNIZED**
- For a Legacy Series System, **LEGACY**



All other Links are similarly organized.



## ChannelCnfgRF1.scn

This file controls the RF output content from the simulator. The first two Satellites / Channels are shown. There are 32 total records. If Channel Assignment Mode is CHECKED, only the first 16 records are processed and interpreted as Hardware Channels, otherwise specific to SVID with no regard to channel assignment.

## Channel/SVID

## Link and Data Specifications

```
1 1 1 1 1 0 0 0 1 1 0 ; SVID/CHNL L1 [E C/A P DATA MENABLE MNAV SDS MMUX MDR MPA]
1 1 0 1 1 0 0 0 1 1 0 ; SVID/CHNL L2 [E C/A P D MENABLE MNAV SDS MMUX MDR MPA]
1 0 0 0 ; SVID/CHNL L2C [E CDATA CFEC]
1 0 0 0 ; SVID/CHNL L5 [E CODE DATA]
1 0 ; SVID/CHNL SASM [ENABLE]
2 1 1 1 1 0 0 0 1 1 0 ; SVID/CHNL L1 [E C/A P DATA MENABLE MNAV SDS MMUX MDR MPA]
2 1 0 1 1 0 0 0 1 1 0 ; SVID/CHNL L2 [E C/A P D MENABLE MNAV SDS MMUX MDR MPA]
2 0 0 0 ; SVID/CHNL L2C [E CDATA CFEC]
2 0 0 0 ; SVID/CHNL L5 [E CODE DATA]
2 0 ; SVID/CHNL SASM [ENABLE]
```

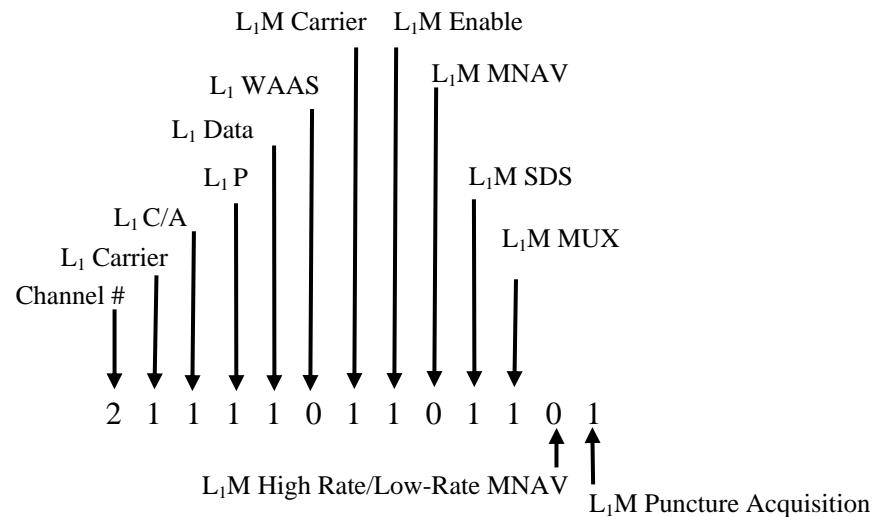
\*\*\* 32 total records \*\*\*

Following is the identification of the various rows and columns in this file:

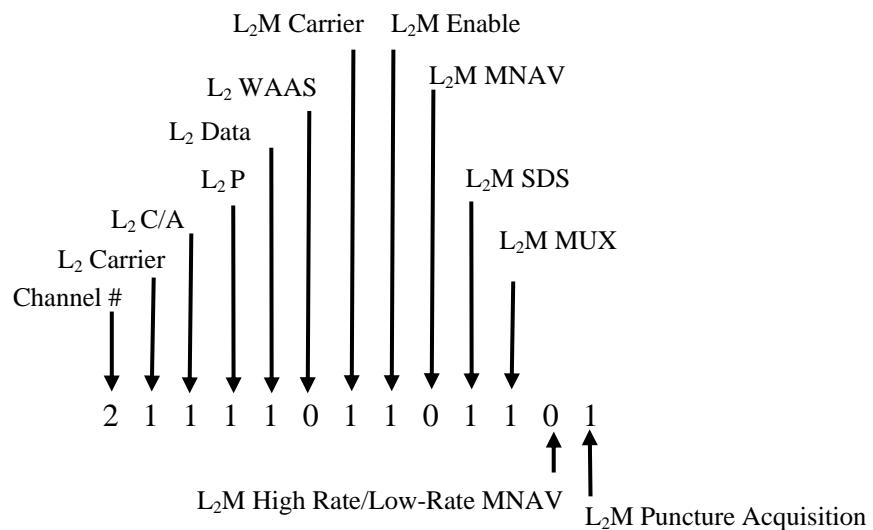


Explicit expansion of one segment: [Each segment is 5 Lines – there are 32 segments]

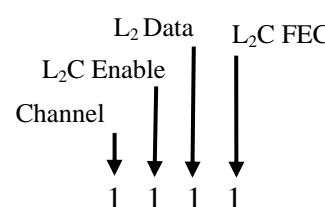
1<sup>ST</sup> Line (L<sub>1</sub>)



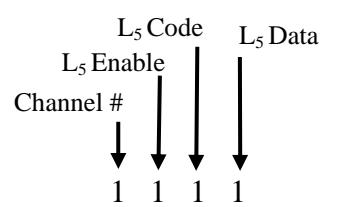
2<sup>ND</sup> Line (L<sub>2</sub>)



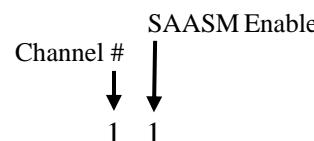
3<sup>RD</sup> Line (L<sub>2C</sub>)



4<sup>TH</sup> Line (L<sub>5</sub>)



5<sup>TH</sup> Line (SAASM/Y)



**The 5 line segment detailed above - is repeated 32 total times.**