

Traceability Matrix, PPS Proposal Instructions

Chapter 31: NIRSpec IFU Spectroscopy

Requirement #	Proposal, Visit, Exposure	Comment
31.1 Introduction		
NRS0069	662 1	NIRSpec IFU Spectroscopy template exists
NRS0365	662 1	Field: Slitlet Offset
NRS0366	662 1	Slitlet Offset, choose from list
NRS0367	662 1	Field: Sub-Pixel Offset
NRS0368	662 1	Sub-Pixel Offset, choose from list
NRS0374	662 1	Field: TA Method
NRS0375	662 1	TA Method, choose TACQ or VERIFY_ONLY
NRS0072	662 1	Field: TACQ Filter
NRS0073	662 1	TACQ Filter, choose from list
NRS0074	662 1	Field: TACQ Readout Pattern
NRS0075	662 1	TACQ Readout Pattern, chose from list
NRS0076	662 1	Field: MSA TACQ Configuration Filename(s)
NRS0077	662 1	MSA TACQ Configuration Filename(s), specify filename(s)
NRS0078	662 1	Field: Reference Stars
NRS0079	662 1	Reference Stars, choose from list
NRS0114	662 9	Field: Pointing Verification Image Filter
NRS0312	662 9	Pointing Verification Image Filter, choose from list
NRS0313	662 9	Field: Pointing Verification Image Readout Pattern
NRS0314	662 9	Pointing Verification Image Readout Pattern, choose from list
NRS0315	662 9	Field: Pointing Verification Image Number of Groups
NRS0316	662 9	Pointing Verification Image Number of Groups, specify number
NRS0317	662 9	Field: Pointing Verification Image MSA Configuration Filename(s)
NRS0378	662 9	Pointing Verification Image MSA Configuration Filename(s), specify filename(s)
NRS0080	662 1.01	Field: Science Grating/Filter
NRS0081	662 1.01	Science Grating/Filter, choose from list
NRS0082	662 1.01	Field: Science Readout Pattern
NRS0083	662 1.01	Science Readout Pattern, choose from list
NRS0084	662 1.01	Field: Science Number of Groups
NRS0085	662 1.01	Science Number of Groups, specify number
NRS0086	662 1.01	Field: Science Number of Integrations
NRS0087	662 1.01	Science Number of Integrations, specify number
NRS0446	662 1.01	Field: Automatic Calibration Option
NRS0447	662 1.01	Automatic Calibration Option, choose DEFAULT, NONE, or WAVECAL
31.2 NIRSpec Integral Field Unit (IFU) Spectroscopy		
31.2.1 Dither Pattern		
NRS0369	662 2	Dither pattern does not apply to target acq image
NRS0370	662 1, example	2 exposures result from dither patterns except below
NRS0371	662 5	single exposure for Slitlet Offset NONE Sub-Pixel Offset None
NRS0448	904 5	Slitlet Offset required field, no default value
NRS0449	904 5	Sub-Pixel Offset required field, no default value
31.2.1.1 Slitlet Offset		
NRS0372	662 5	NONE
NRS0373	662 1	1
NRS0374	662 2	3

NRS0375	662 3	5
31.2.1.2 Sub-Pixel Offset		
NRS0376	662 4	NONE
NRS0377	662 3	SPECTRAL
NRS0378	662 2	SPATIAL
NRS0379	662 1	BOTH
31.2.2 Target Acquisition (TA) Method		
NRS0450	662 1	TACQ
NRS0451	904 6	TACQ is default
NRS0452	662 9	VERIFY_ONLY
NRS0453	904 6	TA Method is a required parameter
NRS0454	662 1	if TACQ APT should display Target Acq parameters
NRS0455	662 9	IF VERIFY_ONLY APT should display Pointing Verification Image parameters
31.2.2.1 Target Acquisition		
31.2.2.1.1 Target Acquisition Filter		
NRS0091	662 3	F140X
NRS0092	662 1	F110W
31.2.2.1.2 Acquisition Readout Pattern		
NRS0093	662 1	NRS
NRS0094	662 4	NRSRAPID
NRS0380	662 1	NRS integration time 127.2 (value doesn't match APT)
NRS0381	662 4	NRSRAPID integration time 31.8 (value doesn't match APT)
NRS0321	662 1	NINTS=1 (hardcoded, user can't change)
NRS0322	662 1	NGROUPS=3 (hardcoded, user can't change)
NRS0338		SUBARAY FULL is used for calculating exposure time
31.2.2.1.3 MSA Target Acquisition Configuration Filename		
NRS0096	662 1	default is to have all MSA shutters open
NRS0097	662 2	specify MSA TACQ Config Filename optional
31.2.2.1.4 Reference Stars		
NRS0098	904 7	minimum 8
NRS0099	904 8	maximum 20
NRS0100	904 8	maximum 20 is a hard limit, error
NRS0101	904 7	minimum 8 should be warning for now
31.2.2.2 Pointing Verification Image		
31.2.2.2.1 Pointing Verification Image Filter		
NRS0095	662 9	F140X
NRS0456	662 11	F110W
31.2.2.2.2 Pointing Verification Image Readout Pattern		
NRS0457	662 9	NRS
NRS0458	662 11	NRSRAPID
31.2.2.2.3 Pointing Verification Image Number of Groups		
NRS0459	662 9	Number of Groups
31.2.2.2.4 Pointing Verification Image MSA Configuration Filename		
NRS0460	662 11	default is to have all MSA shutters open
NRS0461	662 9	specify Verification Image MSA Config Filename optional
NRS0462	662 11	NINTS=1 (hardcoded, user can't change)
NRS0463		SUBARAY FULL is used for calculating exposure time
31.2.3 Science Observation		
31.2.3.1 Grating/Filter		
NRS0464	662 1.01	for each grating/filter specify name and exp duration parameters
31.2.3.1.1 Grating/Filter Name		
NRS0102	662 4.01	G140M/F070LP

NRS0103	662 2.02	G140M/F100LP
NRS0104	662 3.01	F235M/F170LP
NRS0105	662 5.01	G395M/F290LP
NRS0106	662 7.02	G140H/F070LP
NRS0107	662 6.01	G140H/F100LP
NRS0108	662 1.01	G235H/F170LP
NRS0109	662 7.01	G395H/F290LP
NRS0110	662 2.01	PRISM/CLEAR
31.2.3.1.2 Science Readout Pattern		
NRS0111	662 7.02	NRS
NRS0112	904 9.01	NRS is default
NRS0113	662 7.01	NRSRAPID
31.2.3.1.3 Science Number of Groups		
NRS0379	662 1.01	NUMBER OF GROUPS
31.2.3.1.4 Science Number of Integrations		
NRS0380	662 1.01	NUMBER OF INTEGRATIONS
NRS0339	662 1.01	SUBARRAY FULL is used for calculating exposure time
31.2.4 Autocal Exposure(s)		
NRS0318	662 10.03	DEFAULT
NRS0319	904 9.01	DEFAULT is default
NRS0320	662 10.02	NONE
NRS0465	662 10.01	WAVECAL