

NIRSpec Integral Field Unit (IFU) Spectroscopy

Program, Obs(.Exposure_Spec)	Comment
Template Specific Information	
662 1	NIRSpec Integral Field Unit (IFU) Spectroscopy template exists
MA Target Acquisition Parameters Visit Level	
11127 3	Field: Target Acquisition Method choose from list
11127 3	Field: Reference Star Bin choose from list
11127 3	Field: Acquisition Filter set based on Reference star bin
11127 3	Field: Acquisition MSA Configuration Filename choose from list
11127 3	Acquisition Readout Pattern set based on Reference star bin
WATA Target Acquisition Parameters	
632 4	Field: Acquisition Target choose from list
632 4	Field: Acquisition Subarray choose from list
632 4	Field: Acquisition Filter choose from list
632 4	Field: Acquisition Readout Pattern choose from list
Pointing Verification Image	
662 9	Field: Pointing Verification Image Filter
662 9	Field: Pointing Verification Image Readout Pattern
662 9	Field: Pointing Verification Image Number of Groups/Integration
662 9	Field: Pointing Verification Image MSA Configuration Filename
Science Parameters	
662 4	Field: Dither Type choose from list
662 4	Field: Pattern Size choose from list CYCLING only
662 4	Field: Starting Point number CYCLING only
662 4	Field: Number of Points number CYCLING only
662 5	Field: Pattern Size choose from list SPARSE-CYCLING only
662 5	Field: Points number SPARSE-CYCLING only
632 4	Field: Grating/Filter choose from list
632 4.01	Field: Readout Pattern choose from list
632 4.01	Field: Number of Groups/Integration number
632 4.01	Field: Number of Integrations/Exposure number
MSA Leakage Calibration	
662 1	Field: Leakage Calibration NO,YES
662 1	Field: Dither YES, NO
662 1	Field: Autocal NONE, WAVECAL
Target Acquisition Parameters	
Target Acquisition Method	
662 32	NONE
662 1	MSATA
632 4	WATA (default)
662 12	VERIFY_ONLY
632 14	MSATA not allowed for moving targets
632 14	WATA moving targets allowed acq target must be science target
MSA Target Acquisition Exposure Visit Level	
Reference Star Bin	
11127 3	MSA Planning tool generate multiple options
341 4 F140X 6 stars	only 5 or more reference star bins shown

341 4 F140X 6 stars	bin with 5-7 reference stars warning
341 5 F140X 9 stars	no warning for 8 or more
Acquisition Filter	
11127 3	automatically set based on Ref Star Bin CLEAR, F140X, F110W
Acquisition MSA Configuration Filename	
11127 3	select previously config defined in MPT+B53:B54
11127 3	or select ALLOPEN
Acquisition Readout Pattern	
11127 3	automatically set based on Ref Star Bin CLEAR, F140X, F110W
Acquisition Number of Groups/Integration	
11127 3	automatically set to 3 uneditable
Acquisition Number of Integrations/Exposure	
11127 3	automatically set to 1 uneditable
11127 3	SUBARRAY not given, FULL for purposes of exposure time
WATA Target Acquisition Exposure	
632 4	if offset select from list
904 7	ACQUISITION TARGET name should always be present and defaulted to SAME TARGET AS OBSERVATION
904 8	Error if Acq and Science target too far apart
Acquisition Subarray	
632 6	SUB32
632 5	SUB2048
632 4	FULL
Acquisition Filter	
632 5	F140X
632 6	F110W
632 4	CLEAR
Acquisition Readout Pattern	
632 4	NRS
632 2	NRSRAPID
Acquisition Number of Groups/Integration	
632 4	automatically set to 3 uneditable
Acquisition Number of Integrations/Exposure	
632 4	automatically set to 1 uneditable
Pointing Verification Image	
Pointing Verification Image Filter	
662 9	F140X
662 11	F110W
662 12	CLEAR
Pointing Verification Image Readout Pattern	
662 9 (904 30)	NRS (default)
662 11	NRSRAPID
662 12	NRSIRS2
663 13	NRSIRS2RAPID
Pointing Verification Image Number of Groups/Integration	
662 9	number
662 9	SUBARRAY not given, FULL for purposes of exposure time
Pointing Verification Image MSA Configuration Filename	
11134 6	select previously config defined in MPT

11134 5	or select ALLOPEN
662 9	no selection shutters will be open
11134 6	should normally use the ALLOPEN MSA configuration
Science Parameters	
Dither Specifications	
662 1	dither pattern does not apply to target acq image
Dither Type	
662 2	NONE
662 7	2-POINT-NOD
662 3	4-POINT-NOD
662 1	4-POINT-DITHER
662 4	CYCLING
662 5	SPARSE-CYCLING
Cycling	
Pattern Size	
662 4	SMALL
662 8	MEDIUM
662 20	LARGE
Starting Point	
662 4	number 1,2,3... 59,60 type in
Number of Points	
662 4	number 1,2,3... type in
904 29.01	Starting Point + Number of Points cannot exceed 61
Sparse Cycling	
Pattern Size	
662 12	SMALL
662 21	MEDIUM
662 5	LARGE
Points	
662 5	indices from cycling table eg 3,5,7-9,15-19
Science Exposure Specification	
662 2	one or more combos
Grating/Filter Name	
662 4.01	G140M/F070LP
662 2.02	G140M/F100LP
662 3.01	G235M/F170LP
662 5.01	G395M/F290LP
662 7.02	G140H/F070LP
662 6.01	G140H/F100LP
662 1.01	G235H/F170LP
662 7.01	G395H/F290LP
662 2.01	PRISM/CLEAR
Readout Pattern	
632 4.02 (904 7)	NRS (default)
632 4.01	NRSRAPID
662 16.01	NRSIRS2
662 15.02	NRIRS2RAPID
662 16	100 second overhead switching between IRS2 and non-IRS2 in an observation

904 26.01	GROUPS x INTS must be less than 256 for NRSIRS2
904 26.02	GROUPS x INTS must be less than 1024 for NRSIRS2RAPID
904 10&11	if IRS2 or NRSIRS2 must be FULL
662 16	warn if 100 second overhead added
Number of Groups/Integration	
662 1.01	number
904 27.01	maximum 65535
904 23.04,03	illegal 0,65536
Number of Integrations/Exposure	
662 1.01	number
904 27.02	maximum 65535
904 27.03,04	illegal 0,65536
MSA Leakage Calibration Exposure(s) checkbox	
Leakage Calibration	
662 1.01 (904 28.01)	Leakcal NO (default)
662 18.02	Leakcal YES
662 18.02	Leakcal and Autocal are mutually exclusive if Leakcal then AUTOCAL must be set to NONE and uneditable
922 3	if exp specs not grouped by grating report error
922 1	Leakcal must have matching science exposure
922 8.01,03	if more than one Leakcal expspec per grating report error
Dither	
662 1.01 (904 28.01)	YES (default)
662 2.01	NO
Auto Calibration Exposure	
662 1.01 (904 28.01)	NONE (default)
662 9.03	WAVECAL
904 31.01	if Autocal not NONE then error if NO PARALLEL sr not specified