NIRSpec Multi-Object Spectroscopy Spectroscopy

Program, Obs(.Exposure_Spec)	Comment
Template Specific Information	
663 1	NIRSpec Multi-Object Spectroscopy Spectroscopy template exists
11127 2	MSA Plan choose from list if template generated from MPT
663 1	Pre-Image Availability choose from list
663 1	Pre-Image File choose from file browser if Already Obtained
MSA Target Acquisition Parameters Visit Level	
663 1	Field: Target Acquisition Method choose from list
11127 2	Field: Reference Star Bin choose from list
11127 2	Field: Acquisition Filter set based on Reference star bin
11127 2	Field: Acquisition MSA Configuration Filename choose from list
11127 2	Acquisition Readout Pattern set based on Reference star bin
WATA Target Acquisition Parameters	
632 7	Field: Acquisition Target choose from list
732 7	Field: Acquisition Subarray choose from list
732 7	Field: Acquisition Filter choose from list
732 7	Field: Acquisition Readout Pattern choose from list
Pointing Verification Image	
663 11	Field: Pointing Verification Image Filter
663 11	Field: Pointing Verification Image Readout Pattern
663 11	Field: Pointing Verification Image Number of Groups/Integration
663 11	Field: Pointing Verification Image MSA Configuration Filename
Science Parameters	
663 11	Field: Science Aperture choose from list
663 11.01	Field: Grating/Filter choose from list
663 11.01	Field: MSA Configuration
663 11.01	Field: Readout Pattern choose from list
663 11.01	Field: Number of Groups/Integration number
663 11.01	Field: Number of Integrations/Exposure number
663 11.01	Field: Auto Calibration Option choose from list
Confirmation Image	
663 12	Field: Obrain Confirmation Images choose from list
663 c12.01	Field: Confirmation Type
663 c12.01	Field: Confirmation Image Readout Pattern
663 c12.01	Field: Confirmation Image Number of Groups/Integration
MSA Plan	
11127 2	MSA Plan if template generated using the MPT
11127 2	MSA Plan defaults to plan used when template created
	If different plan than one template built from rebuilt to match that plan
Pre-Image Availability	
663 1	Is already obtained
208 8	Will be obtained external to this program
208 10	Will be done in this program
663 2	Not required
663 1	Pre-Image file… select if Is already obtained

208 9	Will be obtained external to his program requires ON HOLD sr
208 10	Will be done in this program, select obs of NIRCam image
208 10	AFTER OBS BY sr req on the MOS to link the NIRCam to MOS minimum 6 weeks
208 9	Will be done requires ON HOLD on MOS
208 10	warning if AFTER by OBS less than 60 days
208 9	error if AFTER OBS BY < 6 weeks
209 8	error if ON HOLD sr not present Will be obtained external…
904 35	APT should verify at least one option is selected
Target Acquisition Parameters	
Target Acquisition Method	
663 34	NONE
663 1 (904 12)	MSATA (default)
632 7	WATA
663 11	VERIFY_ONLY
632 15	MSATA not allowed for moving targets
632 15	WATA moving targets allowed acq target must be science target as offset acq targets not allowed in this case
MSA Target Acquisition Exposure Visit Level	
Reference Star Bin	
11127 2	MSA Planning tool generate multiple options
341 6 CLEAR NRSRAPID 5 stars	only 5 or more reference star bins shown
341 6 CLEAR NRSRAPID 5 stars	bin with 5-7 reference stars warning
341 7 NRSRAPIDD1 8 stars	no warning for 8 or more
Acquisition Filter	
11127 2	automatically set based on Ref Star Bin CLEAR, F140X, F110W
Acquisition MSA Configuration Filename	
11127 2	select previously config defined in MPT
11134 4	or select ALLOPEN
11127 6	Auto Acq MSA Config (default)
Acquisition Readout Pattern	
11127 2	automatically set based on Ref Star Bin
Acquisition Number of Groups/Integration	
11127 2	automatically set to 3 uneditable
Acquisition Number of Integrations/Exposure	
11127 2	automatically set to 1 uneditable
11127 2	SUBARRAY not given, FULL for purposes of exposure time
WATA Target Acquisition Exposure	
632 7	if offset select from list
904 34	ACQUISITION TARGET field should always be present and defaulted to SAME TARGET AS OBSERVATION
904 52	Error if Acq and Science target too far apart
Acquisition Subarray	
632 9	SUB32
632 8	SUB2048
632 7	FULL

Acquisition Filter	
632 9	F140X
632 7	F110W
632 8	CLEAR
Acquisition Readout Pattern	
632 7	NRS
632 9	NRSRAPID
Acquisition Number of Groups/Integration	
632 7	automatically set to 3 uneditable
Acquisition Number of Integrations/Exposure	
632 7	automatically set to 1 uneditable
Pointing Verification Image	
Pointing Verification Image Filter	
663 13	F140X
663 11	F110W
663 14	CLEAR
Pointing Verification Image Readout Pattern	
663 15	NRS
663 11	NRSRAPID
663 13	NRSIRS2
663 14	NRSIRS2RAPID
Pointing Verification Image Number of Groups/Integration	
663 11	number
663 11	SUBARRAY not given, FULL for purposes of exposure time
Pointing Verification Image Number of Integrations/Exposure	
663 11	automatically set to 1 uneditable
Pointing Verification Image MSA Configuration Filename	
663 15	select previously defined config in MPT
663 14	or select ALLOPEN
663 13	or select ALLCLOSED
663 11	no selection shutters will be open
Science Parameters	
Science Aperture	
663 1	MSA Center
11134 3	Q4 Field Point 1
663 32	Q4 Field Point 2
904 17	MSA Center nominal default
904 35	Q4 Field Point 1 becomes default for MOS spectroscopy
Grating/Filter Name	
663 1.01	G140M/F070LP
663 3.02	G140M/F100LP
663 6.01	G235M/F170LP
663 6.02	G395M/F290LP
663 2.01	G140H/F070LP
663 6.03	G140H/F100LP
663 3.03	G235H/F170LP
663 3.01	G395H/F290LP
663 4.01	PRISM/CLEAR
MSA Cnfiguration	

663 4.01	ALLOPEN
663 2.01	ALLCLOSED
11134 4.01	Q4 Field Point 1 Long Slit
11134 2.01	Q4 Field Point 2 Long Slit
11113 6.01	user created msa config
904 14.01,02	MOS science should not usually use ALLOPEN or ALLCLOSED
Readout Pattern	
663 1.01 (904 17)	NRS (default)
663 2.01	NRSRAPID
663 12.01	NRSIRS2
663 24.03	NRIRS2RAPID
904 14.01	GROUPS x INTS must be less than 256 for NRSIRS2
904 14.02	GROUPS x INTS must be less than 1024 for NRSIRS2RAPID
663 24	100 second overhead switching between IRS2 and non-IRS2 in an observation
663 24	warn if 100 second overhead added
Number of Groups/Integration	
663 1.01	number
6815 55.01,02	min/maximum 1 65535
904 33.01,02	illegal 0,65536
Number of Integrations/Exposure	
663 1.01	number
6815 55.02,01	min/maximum 1 65535
904 33.02,01	illegal 0,65536
663 1.01	SUBARRAY not explicitly given, FULL for time calculations
Auto Calibration Exposure(s)	
Autocal	
663 1.01 (904 17)	NONE (default)
663 11.02	FLAT
663 11.03	WAVECAL
663 11.01	BOTH
6815 55.01	if Autocal not NONE then error if NO PARALLEL sr not specified
Optional Confirmation Image	
Obtain Confirmation Images	
663 1 (904 17)	NO (default)
663 2	AFTER TARGET ACQ
663 24	AFTER TARGET ACQ and NEW MSA CONFIGURATION
Confirmation Images it not NO	
Confirmation Readout Pattern	
663 c2.01 (904 c35.01)	NRS (default)
663 c3.01	NRSRAPID
663 c12.01	NRSIRS2
663 c24.03	NRSIRS2RAPID
663 c2.01 no IRS2 663 c12.01 no non-IRS2 663 c24.01-04 both	choice of Science RP dictates avavailability of CI RPs either the IRS2 or the non-IRS2 patterns
Confirmation Number of Groups/Integration	

663 c2.01	number
6815 c55.01,02	min/maximum 1 65535
904 c35.01,c36.01	illegal 0,65536
663 c2.01	SUBARRAY not explicitly given, FULL for time calculations
Confirmation Number of Groups/Integration	
663 c2.01	set to 1 uneditable
663 c2.01	SUBARRAY not explicitly given, FULL for time calculations