

MIRI MEDIUM Resolution (IFU) Spectroscopy

Program, Obs(.Exposure_Spec)	Comment
Template Specific Information	
626 1	MIRI Medium Resolution Spectroscopy template exists
626 1	Field: Acquisition Target choose from list
626 1	Field: Acquisition Filter chose from list
626 1	Field: Acquisition Readout Pattern choose from list
626 1	Field: Acquisition Number of Groups/Integrations choose from list
626 1	Field: Acquisition Number of Integrations/Exposure 1 only allowed value
626 1	Field: Primary Channel choose from list
626 1	Field: Optimized For POINT SOURCE, EXTENDED SOURCE
626 1	Field: Direction POSITIVE, NEGATIVE
626 1	Field: Simultaneous Imaging YES, NO
626 1	Field: Imager Subarray choose from list
626 1	Field: Detector
626 1	Field: Wavelength Range choose from list
626 1	Field: Imager Filter choose from list
626 1	Field: Readout Pattern choose from list
626 1	Field: Number of Groups/Integration number
626 1	Field: Number of Integrations/Exposure number
626 1	Field: Number of Exposures/Dither number
626 1	Field: Dither choose from list
Target Acquisition	
626 1	Science target generally used for acquisition
626 5	Offset star may be used for target acquisition
Acquisition Target	
626 5	if offset star select ACQUISITION TARGET NAME from list targets previously entered
914 24	if Solar System Target acq target can't be other SS target
626 13	if no targ acq needed select NONE
914 25	ACQUISITION TARGET name should always be present and defaulted to prime target for the observation
generic code	Warning if Acq and Science target too far apart
626 1	MRS will use FULL Subarray
Acquisition Target Filter	
626 1	F560W
626 2	F1000W
626 3	F1500W
626 4	FND
Acquisition Readout Pattern	
626 1 (914 27)	FAST (default)
626 2	FASTGRPAVG
Acquisition Number of Groups/Integration	
603 1	5
603 2	7

603 3	9
603 4	11
603 5	13
603 6	19
603 7	27
603 8	39
603 9	57
603 10	85
603 11	99
Acquisition Number of Integrations/Exposure	
626 1	1 only allowed value
Science Exposures	
Primary Channel	
626 1 (914 27)	ALL (default)
626 2	CHANNEL1
626 3	CHANNEL2
626 4	CHANNEL3
626 5	CHANNEL4
Dither Specifications	
626 1	Dither pattern doesn't apply to acquisition image
Dither Type	
626 5.01	2-POINT
626 1.01 (914 27)	4-POINT (default)
Optimized For	
626 2.01 (914 27)	OPTIMIZED FOR: POINT SOURCE (default)
626 1.01	OPTIMIZED FOR: EXTENDED SOURCE
POINT and NEGATIVE	dither created before target no default selected
626 14.01	target chosen first default is POINT SOURCE
626 16.01	target chosen first EXTENDED default is EXTENDED SOURCE
Direction	
626 2.01	DIRECTION POSITIVE
626 1.01 (914 27)	DIRECTION NEGATIVE (default)
626 2.01	2-POINT use first 2 points of dither Optimized For/Direction
Simultaneous Imaging	
626 1 (914 27)	YES (default)
603 1	NO
626 1, 7	if YES set DB DETECTOR=ALL else set DETECTOR=MRS
Imager Subarray	
626 1 (914 27)	FULL (default)
626 2	BRIGHTSKY
626 3	SUB256
626 4	SUB128
626 5	SUB64
626 2,3,4,5	warn if SUBARRAY other than FULL
DB poplation Simultaneous Imaging=NO	
603 1.01	1 Detector MRSLong
603 1.01	1 NEXP
603 1.01	1 READOUT PATTERN
603 1.01	1 NGROUPSLONG

603 1.01	1 NINTSLONG
603 1.01	1 Dither
603 1.01	2 Detector MRSShort
603 1.01	2 NEXP (above)
603 1.01	2 READOUT PATTERN (above)
603 1.01	2 NGROUPSSHORT
603 1.01	2 NINTSSHORT
603 1.01	2 Dither (above)
DB poplation Simultaneous Imaging=YES	
626 1.01	1 Detector Imager
626 1.01	1 FILTER
626 1.01	1 READOUT PATTERN
626 1.01	1 NGROUPSLONG
626 1.01	1 NINTSLONG
626 1.01	1 Dither
626 1.01	2 Detector MRSLong
626 1.01	2 NEXP (above)
626 1.01	2 READOUT PATTERN LONG
626 1.01	2 NGROUPSLONG
626 1.01	2 NINTSLONG
626 1.01	2 DITHER (above)
626 1.01	3 Detector MRSShort
626 1.01	3 NEXP (above)
626 1.01	3 READOUT PATTERN SHORT
626 1.01	2 NGROUPSSHORT
626 1.01	3 NINTSSHORT
626 1.01	3 Dither (above)
Detector	
626 1.01	SI=YES IMAGER, MRSLONG, MRSSHORT
603 1.01	SI=NO MRSLONG, MSSHORT
Wavelength Range	
603 1.01	SHORT (A)
603 1.02	MEDIUM (B)
603 1.03	LONG (C)
603 1	DB: WAVELENGTH into WAVELENGTH_1_4 & WAVELENGTH_2_3
Imager Filter Name	
626 1.01	F560W
626 2.01	F770W
626 3.01	F1000W
626 4.01	F1130W
626 5.01	F1280W
626 5.02	F1500W
626 5.03	F1800W
626 6.01	F2100W
626 6.02	F2550W
Filter Name LAP	
338 1.01	OPAQUE
338 1.02	FLENS
338 1.03	F1065C

338 1.04	F1140C
338 1.05	F1550C
338 1.06	F2300C
338 1.07	F2550WR
338 1.08	P750L
338 1.09	FND
914 46.01-09 PS	ALL F1280 FND F1500W F1550C F1800W F2100W F2300C
914 54.01-09 ES	F2550W F2550WR Imager Filter overlap warning
914 47.01-09 PS	CHANNEL1 F1280 FND F1500W F1550C F1800W F2100W F2300C
914 54.01-09 ES	F2550W F2550WR Imager Filter overlap warning
914 48.01-09	CHANNEL2,CHANNEL3, CHANNEL4 the long filters above and
914 51.01-09	EXTENDED SOURCE
914 52.01-09	
Readout Pattern	
626 1.01 (914 21.01)	FAST (Imager default)
626 2.01 (914 21.01)	SLOW (MRS default)
626 1.01 MRS	FASTGRPAVG LAP
914 22 NO WARNING	if SLOW & FAST for MRS in 1 obs settling delay warning
914 20	if SLOW & FAST for Imager in 1 obs data quality issues warning
Number of Groups/Integration	
603 9.01 has 3	must be > 2 legal, illegal
914 49 has 1	
603 12.03 has 2	FASTGRPAVG, recommended at least 4
914 49.01-02	SLOW 2-4 allowed but not recommended
914 49.03-04	FAST 2-4 allowed but not recommended
Number of Integrations/Exposure	
914 21.01	default 1
603 1.01	nondefault
914 1.01	$NoInt(Long)*NoGrp(Long)=NoInt(Short)*NoGrp(Short)$
914 19.1	MRS determines total exp duration if SI=YES give warning if Imager exposure longer than MRS exposures
Number of Exposures/Dither	
914 21.01	default 1
914 50.01	> 1 NO PARALLEL required if dithered
Dither	
626 1.01	select number of previously specified
603 1.01	or NONE
914 21.01	no default