

NIRCam Engineering Imaging

Program, Obs(.Exposure_Spec)	Comment
Template Specific Information	
620 1	NIRCam Engineering Imaging Template exists
620 1	Field: Module A, B, ALL
620 1	Field: Subarray choose from list
620 1	Field: Primary Dither Type choose from list
620 7	Field: Primary Dithers choose from list FULL
640 1	Field: Primary Dithers choose from list FULLBOX
620 3	Field: Primary Dithers choose from list INTRAMODULE
641 23	Field: Primary Dithers choose from list INTRAMODULEBOX
641 8	Field: Primary Dithers choose from list INTRAMODULEX
620 2	Field: Primary Dithers choose from list INTRASCA
620 2	Field: Dither Size choose from list INTRASCA only
6589 8	Field: Primary Dithers choose from list SUBARRAY_DITHER
620 13	Field: WFSC Primary Dithers 2PLUS,2 MINUS WFSC
620 1	Field: Subpixel Dither Type STANDARD, SMALL-GRID-DITHER
620 1	Field: Subpixel Positions 1,2,3... STANDARD only no WFSC
620 1.01	Field: Small Grid Dithers choose from list SMALL-GRID-DITHER
620 1.01	Field: Short Camera Pupil choose from list
620 1.01	Field: Short Camera Filter choose from list
620 1.01	Field: Long Camera Pupil choose from list
620 1.01	Field: Long Camera Filter choose from list
620 1.01	Field: Readout Pattern choose from list
620 1.01	Field: Number of Groups/Integration number
620 1.01	Field: Number of Integrations/Exposure number
Science Exposures	
Module	
620 1	A
620 2	B
620 3	ALL
Subarray	
620 1	FULL
620 5	SUB160
620 4	SUB320
620 2	SUB640
620 6	SUB400P
620 7	SUB160P
620 8	SUB64P
620 9	SUBGRISM256
620 10	SUBGRISM128
620 13	SUBGRISM64
620 15	SUB96DHSPILA
620 11	SUB96DHSPILB
620 3	Module ALL only allows FULL
Dither Patterns	
Primary Dither Type	

620 1	None
620 7	FULL
640 1	FULLBOX
620 3	INTRAMODULE
641 23	INTRAMODULEBOX
641 8	INTRAMODULEX
620 2	INRASCA
6589 8	SUBARRAY_DITHER
620 13	WFSC
908 42	Primary Dither Type required field
908 42	Primary Dither Type no default value (don't make NONE)
Full Primary Dithers	
620 12	3TIGHT
620 17	3
620 11	6
620 19	9
620 15	15
620 20	21
620 21	27
620 7	36
620 22	45
Fullbox Primary Dithers	
640 1	2TIGHTGAPS
640 2	3TIGHTGAPS
640 3	4TIGHT
640 4	4
640 5	5TIGHT
640 6	6TIGHT
640 7	6
640 8	8NIRSPEC
Intramodule Primary Dithers	
620 3	3
641 38	4
641 39	6
641 40	8
641 41	12
620 6	16
Intramodulebox Primary Dithers	
641 23	2
641 24	3
641 25	4
641 26	5
641 27	6
641 28	7
641 29	8
641 30	9
641 31	10
641 32	11
641 33	12

641 34	13
641 35	14
641 36	15
641 37	16
Intramodulex Primary Dithers	
641 8	2
641 9	3
641 10	4
641 11	5
641 12	6
641 13	7
641 14	8
641 15	9
641 16	10
641 17	11
641 18	12
641 19	13
641 20	14
641 21	15
641 22	16
Intrasca Primary Dithers	
620 5	2
641 1	3
620 2	4
641 2	5
641 3	7
641 4	9
641 5	13
641 6	17
641 7	6
old now NULL in DB	populate CAMERA=SHORT until details worked out
Dither Size	
620 9	8" (SMALL)
620 2	16" (MEDIUM)
620 5	24" (LARGE)
620 9,2,5	DB gets SMALL, MEDIUM, LARGE
Subarray Dither Primary Dithers	
6589 10	2
6589 8	3
6589 9	4
WFSC	
620 13	2PLUS
620 14	2MINUS
Subpixel Dither Type	
620 1	STANDARD
908 43	STANDARD is default
640 18	SMALL-GRID-DITHER
Standard Subpixel Positions	
620 1	1

908 43	1 is default
620 2	2
620 5	3
620 3	4
640 1	5
620 6	7
640 2	9
6587 7	12
640 3	16
6587 8	20
640 4	24
6587 9	30
640 9	36
640 10	48
640 11	64
620 1	secondary dither points allowed for all dithers including NONE
620 13	secondary dither points not allowed for WFSC
Small Grid Dither (subpixel dithers)	
640 18	5-POINT-BOX
640 19	5-POINT-DIAMOND
640 20	5-POINT-CIRCLE
640 7	1
640 6	2
640 5	3
640 12	4
640 13	5
640 14	6
640 15	7
640 16	8
640 17	9
Pupils and Filters	
	if only 1 exposure duration ???
Short Camera Pupil Name	
620 1.01	CLEAR
620 2.01	MASKRND
620 3.01	MASKBAR
620 4.01	MASKIPR
620 2.02	F162M
620 6.01	F164N
620 7.01	GDHS0
620 8.01	GDHS60
620 9.01	PINHOLES
620 12.01	WLP8
620 10.01	WLM8
620 11.01	FLAT
Short Camera Filter Name	
620 12.01	F070W
620 11.01	F090W
620 2.02	F115W

620 9.01	F150W
620 8.01	F150W2
620 7.01	F200W
620 6.01	F140M
620 5.01	F182M
620 4.01	F210M
620 3.01	F187N
620 2.01	F212N
620 1.01	WLP4
Long Camera Pupil Name	
620 9.01	CLEAR
620 1.01	MASKRND
620 11.01	MASKBAR
620 2.01	MASKIPR
620 2.02	F323N
620 4.01	F405N
620 5.01	F466N
620 6.01	F470N
620 7.01	GRISMR
620 8.01	GRISMC
620 13.01	PINHOLES
620 10.01	FLAT
Long Camera Filter Name	
620 10.01	F277W
620 11.01	F322W2
620 9.01	F356W
620 8.01	F444W
620 7.01	F250M
620 6.01	F300M
620 2.02	F335M
620 4.01	F360M
620 3.01	F410M
620 2.01	F430M
620 1.01	F460M
620 12.01	F480M
	some combos require different apertures, only 1 aperture allowed per observation, reactive check needed to warn user
Readout Pattern	
620 1.01	RAPID
620 2.01	BRIGHT1
620 3.01	BRIGHT2
620 2.02	SHALLOW2
620 5.01	SHALLOW4
620 6.01	MEDIUM2
620 7.01	MEDIUM8
620 8.01	DEEP2
620 9.01	DEEP8
Number of Groups/Integration	
620 1.01	number

Number of Integrations/Exposure	
620 1.01	number
Legal GROUPS INTS max (min is always 1)	
6815 35, 57	RAPID 5000, 65535
6815 56, 58	RAPID ALL 4, 1
6815 35, 57	BRIGHT1 5000, 65535
6815 35, 57	BRIGHT2 5000, 65535
6815 56, 58	BRIGHT2 ALL 4, 1
6815 35, 57	SHALLOW2 2000, 5000
6815 35, 57	SHALLOW4 2000, 5000
6815 35, 57	MEDIUM2 2000, 5000
6815 35, 57	MEDIUM8 2000, 5000
6815 35, 57	DEEP2 2000, 5000
6815 35, 57	DEEP8 2000, 5000
Illegal GROUPS INTS max (min is always 0)	
908 37, 39	RAPID 5001, 65536
908 40, 41	RAPID ALL 5, 2
908 37, 39	BRIGHT1 5001, 65536
908 37, 39	BRIGHT2 5001, 65536
908 40, 41	BRIGHT2 ALL 5, 2
908 37, 39	SHALLOW2 2001, 5001
908 37, 39	SHALLOW4 2001, 5001
908 37, 39	MEDIUM2 2001, 5001
908 37, 39	MEDIUM8 2001, 5001
908 37, 39	DEEP2 2001, 5001
908 37, 39	DEEP8 2001, 5001