

E TSUM Requested by: DAVE		Date: 20.04.2022 9:51:32 AM	DB: VARUNA - API - REV.B.MDB		Plan Id.:	Notice type: NONGEO		
A	A1a Sat. Network	VARUNA	A1f1 Notif. adm.	USA	A1f3 Inter. sat. org.	BR1 Date of receipt	15.03.2022	BR20 BR IFIC no.
BR6a/BR6b Id. no.		1	BR3a Provision reference		9.1/IA	BR2 Adm. serial no.		

Résumé / Summary / Resumen

Article 9, sous-section IA / Article 9, sub-section IA / Artículo 9, sub-sección IA
 第9条第1A分节 / Статья 9, подраздел IA / المادة 9، القسم الفرعي IA

B1a Beam designation	B2 Emi-Rcp	BR8 Action code	BR7a Group id.	BR9 Action code	BR47 Frequency band (MHz)	BR62 Expiry date for bringing into use	C4a Class of station
SRX	R		3		2049.85 - 2050.15		ET
SRX2	R		6		2049.85 - 2050.15		ET
URX	R		4		402.88 - 402.92		ET
URX2	R		7		402.88 - 402.92		ET
UTX	E		5		400.48 - 400.52		ET
UTX2	E		8		400.48 - 400.52		ET

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BR6a/BR6b Id. no.		1	BR3a Provision reference		9.1/IA	BR2 Adm. serial no.		SRX	R

A1f2 Submitted on behalf

A1g Short Mission Duration Res 32 N

A4b1 No. of orbital planes 1 A4b2 Ref. body T BR43 Orbital configuration

A4b1a Constellation N A4b1b Configuration type A4b1c Number of sub-sets mutually exclusive A4b1d Attachment no.

A4b3a No. of space stations simult. trans. on Northern Hemisphere A4b3b No. of space stations simult. trans. on Southern Hemisphere

Orbital plane id. no.	A4b4a Inclination angle	A4b4b No. of satellites in this plane	A4b4c Period	A4b4d Apogee	A4b4e Perigee	A4b4f Min. altitude	A4b4i Arg. of perigee	A4b4j Long. asc. node	A4b4m,n,o Sun synchronous		
									Y/N	Node reference time	Node local time
1	54	1	0-01:46	1056e0	1056e0	1056e0			N		

Orbital plane no.	Satellite no.	A4b4h Initial phase angle	A4b4k Date	A4b4l Time	B4a Orbit link / List of beams
1	1				

B1a/BR17 Beam designation	SRX	B1b Steerable	<input type="checkbox"/>	B2 Emi-Rcp	R	B3a1 Max. co-polar gain	4
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B2a1 Transmit only when visible from notified service area Y B2a2 Min. Elev. Angle

B3c1 Co-polar antenna pattern					
Co-polar ref. pattern	Coef. A	Coef. B			Co-polar rad. diag.

List of orbital planes
ALL

B4a3a1 Angle alpha B4a3a2 Angle beta

BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id.	3	BR1 Date of receipt	15.03.2022	C2c RR No. 4.4	<input type="text"/>
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BR14 Special Section

C4a Class of station ET C3a Assigned freq. band

C5a Noise temperature 330

C4b Nature of service OT C6a Polarization type CR

C6b Polarization angle

C11a2 Service area G I

C11a3 Service area diagram

A2b Period of valid. 5 A3a Op. agency 161 A3b Adm. resp. A BR16 Value of type C8b

BR96 Start date for 9.1/9.1A

BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range			
C1a Lower limit	C1b Upper limit		
2049.85	MHz	2050.15	MHz

C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attch.	C8c3 Min. pwr dens.	C8c4 Attch.	C8e1 C/N ratio	C8e2 Attch.	C8f2 E.i.r.p. on the beam axis
1 300KG1D--	20	-34.7	0		-54.7		16		

C7b Carrier frequency of the emissions (300KG1D--)									
2050	MHz								

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 BR6a/BR6b Id. no. 1 BR3a Provision reference 9.1/IA BR2 Adm. serial no. SRX R

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.		C10c2 Ctry	C10d1/C10d2 Cls. / Nat.			C10d3 Max. iso. gain	C10d4 Bmwdth				
IT-01	S	009E21 44	45N35 36	I	1	TT	OT	34.3	3.2				
UK-01	S	000W51 30	60N44 54	G	1	TT	OT	35.1	2.6				

C10d5a Co-polar antenna pattern							
C10b1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
IT-01	REC-465-5						
UK-01	REC-465-5						

13C Remarks CMD RX

B1a/BR17 Beam designation SRX2 B1b Steerable B2 Emi-Rcp R B3a1 Max. co-polar gain 4

B2a1 Transmit only when visible from notified service area Y B2a2 Min. Elev. Angle

B3c1 Co-polar antenna pattern							
Co-polar ref. pattern	Coef. A	Coef. B					Co-polar rad. diag.

List of orbital planes
ALL

B4a3a1 Angle alpha B4a3a2 Angle beta

BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 6 BR1 Date of receipt 15.03.2022 C2c RR No. 4.4

BR14 Special Section
 C4a Class of station ET C3a Assigned freq. band C5a Noise temperature 330
 C4b Nature of service OT C6a Polarization type CR C6b Polarization angle
 C11a2 Service area G I C11a3 Service area diagram

A2b Period of valid. 5 A3a Op. agency 161 A3b Adm. resp. A BR16 Value of type C8b

BR96 Start date for 9.1/9.1A

BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range			
C1a Lower limit	C1b Upper limit		
2049.85	MHz	2050.15	MHz

C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attch.	C8c3 Min. pwr dens.	C8c4 Attch.	C8e1 C/N ratio	C8e2 Attch.	C8f2 E.i.r.p. on the beam axis
1 300KG1D--	20	-34.7	0		-54.7		16		

C7b Carrier frequency of the emissions (300KG1D--)
2050 MHz

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.		C10c2 Ctry	C10d1/C10d2 Cls. / Nat.			C10d3 Max. iso. gain	C10d4 Bmwdth				
IT-01	S	009E21 44	45N35 36	I	1	TT	OT	34.3	3.2				
UK-01	S	000W51 30	60N44 54	G	1	TT	OT	35.1	2.6				

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BR6a/BR6b Id. no. 1		BR3a Provision reference 9.1/IA		BR2 Adm. serial no.		SRX2	R

C10d5a Co-polar antenna pattern							
C10b1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
IT-01	REC-465-5						
UK-01	REC-465-5						

13C Remarks CMD RX

B1a/BR17 Beam designation URX	B1b Steerable	B2 Emi-Rcp R	B3a1 Max. co-polar gain 1.8
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B2a1 Transmit only when visible from notified service area Y B2a2 Min. Elev. Angle

B3c1 Co-polar antenna pattern						
Co-polar ref. pattern	Coef. A	Coef. B				Co-polar rad. diag.

List of orbital planes
ALL

B4a3a1 Angle alpha B4a3a2 Angle beta

BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 4 BR1 Date of receipt 15.03.2022 C2c RR No. 4.4 Y

BR14 Special Section
 C4a Class of station ET C3a Assigned freq. band C5a Noise temperature 330
 C4b Nature of service OT C6a Polarization type L C6b Polarization angle 0
 C11a2 Service area G I USA C11a3 Service area diagram

A2b Period of valid. 5 A3a Op. agency 161 A3b Adm. resp. A BR16 Value of type C8b

BR96 Start date for 9.1/9.1A

BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range			
C1a Lower limit	C1b Upper limit		
402.88 MHz	402.92 MHz		

C7a Design. of emission	C8a1/C8b1 Max. peak pwr	C8a2/C8b2 Max. pwr dens.	C8c1 Min. peak pwr	C8c2 Attch.	C8c3 Min. pwr dens.	C8c4 Attch.	C8e1 C/N ratio	C8e2 Attch.	C8f2 E.i.r.p. on the beam axis
1 40K0F1DBN	18.1	-27.9	-1.9		-47.9		16		

C7b Carrier frequency of the emissions (40K0F1DBN)									
402.9	MHz								

C10b1 Assoc. earth station id.	C10b2 Type	C10c1 Geographical coord.		C10c2 Ctry	C10d1/C10d2 Cls. / Nat.		C10d3 Max. iso. gain	C10d4 Brmwdth				
SANTA CLARA, CA	S	121W57 40	37N22 48	USA	1	TT OT	21.5	12				
LITTLETON, CO	S	105W08 01	39N34 24	USA	1	TT OT	20.8	13.4				
IT-01	S	009E21 44	45N35 36	I	1	TT OT	16	23				
UK-01	S	000W51 30	60N44 54	G	1	TT OT	16	23				

C10d5a Co-polar antenna pattern							
C10b1 Assoc. earth station id.	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
SANTA CLARA, CA	AP8						

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BR6a/BR6b Id. no. 1 BR3a Provision reference 9.1/IA BR2 Adm. serial no. URX R

LITTLETON, CO AP8
 IT-01 AP8
 UK-01 AP8

13C Remarks

B1a/BR17 Beam designation URX2 B1b Steerable B2 Emi-Rcp R B3a1 Max. co-polar gain 1.8

B2a1 Transmit only when visible from notified service area Y B2a2 Min. Elev. Angle

B3c1 Co-polar antenna pattern					
Co-polar ref. pattern	Coef. A	Coef. B			Co-polar rad. diag.

List of orbital planes
 ALL

B4a3a1 Angle alpha B4a3a2 Angle beta
 BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 7 BR1 Date of receipt 15.03.2022 C2c RR No. 4.4 Y

BR14 Special Section
 C4a Class of station ET C3a Assigned freq. band C5a Noise temperature 330
 C4b Nature of service OT C6a Polarization type L C6b Polarization angle 0
 C11a2 Service area G I USA C11a3 Service area diagram

A2b Period of valid. 5 A3a Op. agency 161 A3b Adm. resp. A BR16 Value of type C8b

BR96 Start date for 9.1/9.1A

BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range			
C1a Lower limit		C1b Upper limit	
402.88	MHz	402.92	MHz

C7a	C8a1/C8b1	C8a2/C8b2	C8c1	C8c2	C8c3	C8c4	C8e1	C8e2	C8f2
Design. of emission	Max. peak pwr	Max. pwr dens.	Min. peak pwr	Attch.	Min. pwr dens.	Attch.	C/N ratio	Attch.	E.i.r.p. on the beam axis
1 40K0F1DBN	18.1	-27.9	-1.9		-47.9		16		

C7b Carrier frequency of the emissions (40K0F1DBN)
 402.9 MHz

C10b1	C10b2	C10c1		C10c2	C10d1/C10d2		C10d3	C10d4					
Assoc. earth station id.	Type	Geographical coord.		Ctry	Cls. / Nat.		Max. iso. gain	Bmwdth					
SANTA CLARA, CA	S	121W57 40	37N22 48	USA	1	TT OT	21.5	12					
LITTLETON, CO	S	105W08 01	39N34 24	USA	1	TT OT	20.8	13.4					
IT-01	S	009E21 44	45N35 36	I	1	TT OT	16	23					
UK-01	S	000W51 30	60N44 54	G	1	TT OT	16	23					

C10d5a Co-polar antenna pattern							
C10b1	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
SANTA CLARA, CA	AP8						
LITTLETON, CO	AP8						

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 BR6a/BR6b Id. no. 1 BR3a Provision reference 9.1/IA BR2 Adm. serial no. URX2 R

IT-01 AP8
 UK-01 AP8

13C Remarks

B1a/BR17 Beam designation UTX B1b Steerable B2 Emi-Rcp E B3a1 Max. co-polar gain 2.1

B2a1 Transmit only when visible from notified service area Y B2a2 Min. Elev. Angle

B3c1 Co-polar antenna pattern					
Co-polar ref. pattern	Coef. A	Coef. B			Co-polar rad. diag.

List of orbital planes
 ALL

B4a3a1 Angle alpha B4a3a2 Angle beta
 BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 5 BR1 Date of receipt 15.03.2022 C2c RR No. 4.4

BR14 Special Section

C4a Class of station ET C3a Assigned freq. band

C4b Nature of service OT C6a Polarization type L C6b Polarization angle 0

C8d1 Max. tot. peak pwr. C8d2 Contiguous bandwidth

C11a2 Service area G I USA C11a3 Service area diagram

A2b Period of valid. 5 A3a Op. agency 161 A3b Adm. resp. A BR16 Value of type C8b

BR96 Start date for 9.1/9.1A

BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range			
C1a Lower limit	C1b Upper limit		
400.48 MHz	400.52 MHz		

C7a	C8a1/C8b1	C8a2/C8b2	C8c1	C8c2	C8c3	C8c4	C8e1	C8e2	C8f1
Design. of emission	Max. peak pwr	Max. pwr dens.	Min. peak pwr	Attch.	Min. pwr dens.	Attch.	C/N ratio	Attch.	E.i.r.p. on the beam axis
1 40K0F1DBN	6	-40	-14		-60		16		

C7b Carrier frequency of the emissions (40K0F1DBN)									
400.5	MHz								

C10b1	C10b2	C10c1		C10c2	C10d1/C10d2		C10d3	C10d4	C10d6		
Assoc. earth station id.	Type	Geographical coord.		Ctry	Cls. / Nat.		Max. iso. gain	Bmwdth	Noise temp.		
SANTA CLARA, CA	S	121W57 40	37N22 48	USA	1	TT OT	21.5	12	500		
LITTLETON, CO	S	105W08 01	39N34 24	USA	1	TT OT	20.8	13.4	500		
IT-01	S	009E21 44	45N35 36	I	1	TT OT	16	23	575		
UK-01	S	000W51 30	60N44 54	G	1	TT OT	16	23	575		

C10d5a Co-polar antenna pattern							
C10b1	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
SANTA CLARA, CA	AP8						
LITTLETON, CO	AP8						

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 BR6a/BR6b Id. no. 1 BR3a Provision reference 9.1/IA BR2 Adm. serial no. UTX E

IT-01 AP8
 UK-01 AP8

13C Remarks

B1a/BR17 Beam designation UTX2 B1b Steerable B2 Emi-Rcp E B3a1 Max. co-polar gain 2.1

B2a1 Transmit only when visible from notified service area Y B2a2 Min. Elev. Angle

B3c1 Co-polar antenna pattern					
Co-polar ref. pattern	Coef. A	Coef. B			Co-polar rad. diag.

List of orbital planes
 ALL

B4a3a1 Angle alpha B4a3a2 Angle beta
 BR92 Attach. for missing angle alpha/beta

BR7a/BR7b Group id. 8 BR1 Date of receipt 15.03.2022 C2c RR No. 4.4

BR14 Special Section

C4a Class of station ET C3a Assigned freq. band

C4b Nature of service OT C6a Polarization type L C6b Polarization angle 0

C8d1 Max. tot. peak pwr. C8d2 Contiguous bandwidth

C11a2 Service area G I USA C11a3 Service area diagram

A2b Period of valid. 5 A3a Op. agency 161 A3b Adm. resp. A BR16 Value of type C8b

BR96 Start date for 9.1/9.1A

BR60 Regulatory deadline(s) 11.44/11.44.1

C1 Frequency Range			
C1a Lower limit	C1b Upper limit		
400.48 MHz	400.52 MHz		

C7a	C8a1/C8b1	C8a2/C8b2	C8c1	C8c2	C8c3	C8c4	C8e1	C8e2	C8f1
Design. of emission	Max. peak pwr	Max. pwr dens.	Min. peak pwr	Attch.	Min. pwr dens.	Attch.	C/N ratio	Attch.	E.i.r.p. on the beam axis
1 40K0F1DBN	6	-40	-14		-60		16		

C7b Carrier frequency of the emissions (40K0F1DBN)									
400.5	MHz								

C10b1	C10b2	C10c1		C10c2	C10d1/C10d2		C10d3	C10d4	C10d6		
Assoc. earth station id.	Type	Geographical coord.		Ctry	Cls. / Nat.		Max. iso. gain	Bmwdth	Noise temp.		
SANTA CLARA, CA	S	121W57 40	37N22 48	USA	1	TT OT	21.5	12	500		
LITTLETON, CO	S	105W08 01	39N34 24	USA	1	TT OT	20.8	13.4	500		
IT-01	S	009E21 44	45N35 36	I	1	TT OT	16	23	575		
UK-01	S	000W51 30	60N44 54	G	1	TT OT	16	23	575		

C10d5a Co-polar antenna pattern							
C10b1	Co-polar ref. pattern	Coef. A	Coef. B	Coef. C	Coef. D	Phi1	Co-polar rad. diag.
SANTA CLARA, CA	AP8						
LITTLETON, CO	AP8						

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BR6a/BR6b Id. no.		1		BR3a Provision reference 9.1/IA		BR2 Adm. serial no.		UTX2		E

IT-01	AP8							
UK-01	AP8							

13C Remarks

BR22 Administration remarks

BR23 Radiocommunication Bureau comments