

# RADIO SITE DESIGN DOCUMENTATION

Region : North KC2500

ERICSSON #		
CAPTION LIST Document No.	Document List	,
001 53-IPA 166 0344 Uen		
2019-06-25 A		
SITE	Site Documents	2
INSTALLATION		
DOCUMENT	Plant Specification	;
telenor	Cabling Diagram	
Telenor Myanmar		
KC2500 Kachin	External Alarm	,
G900+U2100+L1800	Check Lists	
	Test Documents	
	Acceptance Certificate	



#### **DOCUMENT LIST**



Prepared (also subject responsible if other)
EMZ Zaw Myo Aung
Doc respons/Approved
EMZ Manoj Kumar A Document No. 001 51-IPA 166 0344 Uen Checked Date Rev. SDD\_KC2500\_Rev.A 2019-06-25

Project: **Telenor Myanmar** 

Site: KC2500

	Document name	Document number	Rev.
	SITE INSTALLATION DOCUMENT	001 53-IPA 166 0344 Uen	Α
1	DOCUMENT LIST Document List	001 51-IPA 166 0344 Uen	Α
2 2.1 2.2 2.3 2.4 2.5	SITE DOCUMENTS Configuration Data RBS Situating Plan Antenna Placement Information Grounding Information Cable way Drawing	1/127 04-IPA 166 0344 Uen 153 38-IPA 166 0344 Uen 153 12-IPA 166 0344 Uen 193 34-IPA 166 0344 Uen 193 24-IPA 166 0344 Uen	A A A A
3 3.1	PLANT SPECIFICATION Plant Specification (RBS)	1/127 11-IPA 166 0344 Uen	Α
4 4.1 4.2 4.3	CABLING DIAGRAM Cabling Diagram (power and earth) Cabling Diagram (signal and antenna) Allocation Drawing (Cabinet)	1/193 18-IPA 1/356 07 Uen 2/193 18-IPA 1/356 08 Uen 193 26-IPA 1/356 09 Uen	A A A
5	EXTERNAL ALARM Allocation Table	193 19-IPA 166 0344 Uen	Α
6 6.1 6.2	CHECK LISTS Installation Check List OHS Check List	153 11-IPA 166 0344 Uen 176 27-IPA 166 0344 Uen	A A
7 7.1 7.2	TEST DOCUMENTS RBS Test Report - G900 RBS Test Report - W2100	1/153 83-IPA 166 0344 Uen 2/153 83-IPA 166 0344 Uen	A A
8	ACCEPTANCE CERTIFICATE Product List Site Photos Acceptance Certificate	1/193 32-IPA 166 0344 Uen PHT-09:0001-IPA 166 0344 Uen 179 61-IPA 166 0344 Uen	A A A





8	ERICSSON 📕		CONFIGURATIO	ON DATA F	RBS telenor
7-2	Prepared (also subject responsible if other)		Document No.		
4-6	EMZ Zaw Myo Aung		1/127 04-IPA 16	6 0344 Uei	n
20	Doc respons/Approved	Checked	Date	Rev.	File
PA3	EMZ Manoj Kumar A		2019-06-25	Α	SDD KC2500 Rev.A

Project: **Telenor Myanmar** 

KC2500 Site:

#### **GENERAL SITE DATA** 1

1.1 Geographical coordinates N 24º 15' 42.08" - E 97º 16' 15.89" 12

Region North

1.3 Address Bhamo, Kachin Green Field Outdoor cabinet 1.4 Type of Site Equipment location 1.5 Floor material Concrete 16

#### **TECHNICAL DATA RBS GSM SYSTEM** 2

2.1 GSM System 2.2 RBS type No. of sector RBS 6601 2.3 2.4 No. of carrier 3/3/3

No. of Remote Radio Unit (RRU) 2.5

RRU2219 B8 2.6 RRU type Mechanical Dimensions RRUS (mm) WxDxH 470x190x518 2.7 2.8 Weight for one RRU (kg) 22.4 Mechanical Dimensions MU(mm) WxDxH 483x355x66

10 kg -48V DC 2.10 Weight for one Main Unit (fully equiped) 2.11 Power supply

2.12 Power consumption (maximum) 437 W (MU) 300 W (RRUs) 15A + 3x 25A 340 W (MU) 300 W (RRUs) 2.13 Mains circuit breaker 2.14 Heat dissipation (maximum)

#### **TECHNICAL DATA RBS WCDMA SYSTEM** 3

WCDMA 3.1 System RBS type 3.2 **RBS 6601** 

3.3 No. of sector 2/2/2 3.4

No. of carrier No. of Remote Radio Unit (RRU) 3.5

3 RRU2219 B1 RRU type 3.6 470x190x518 Mechanical Dimensions RRUS (mm) WxDxH 37 3.8 22.4

Weight for one RRU (kg)
Mechanical Dimensions MU(mm) WxDxH 483x355x66 3.9 10 kg -48V DC Weight for one Main Unit (fully equiped) 3.10

3.11 Power supply 3.12 Power consumption (maximum) 437 W (MU) 300 W (RRUs)

Mains circuit breaker 3.13

15A + 3x 25A 340 W (MU) 300 W (RRUs) Heat dissipation (maximum) 3.14

#### 4 **TECHNICAL DATA RBS LTE SYSTEM**

4.1 LTE1800 System 4.2 **RBS** type RBS 6601 4.3 No. of sector 4.4 No. of carrier 2/2/2

4.5 No. of Remote Radio Unit (RRU) RRUS 2219 B3 4.6 RRU type 470x190x518 47 4.8 22.4

Mechanical Dimensions RRUS (mm) WxDxH
Weight for one RRU (kg)
Mechanical Dimensions MU(mm) WxDxH
Weight for one Main Unit (fully equiped) 483x355x66 4.9 4 10 10 kg -48V DC 4.11 Power supply

Power consumption (maximum) 437 W (MU) 300 W (RRUs) 4 12 15A + 3x 25A 340 W (MU) 300 W (RRUs) Mains circuit breaker 4.13

Heat dissipation (maximum) 4 14

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#### 5 **TECHNICAL DATA CABINET**

5.1 Mechanical Dimensions (mm) WxDxH

Free space for equipment





<sub>®</sub> E	RICSSON 📕		CONFIGURATIO	N DATA F	RBS telenor
-7 F	Prepared (also subject responsible if other)		Document No.		
5	EMZ Zaw Myo Aung		1/127 04-IPA 160	6 0344 Uer	n
8	Ooc respons/Approved	Checked	Date	Rev.	File
E I	EMZ Manoj Kumar A		2019-06-25	Α	SDD KC2500 Rev.A

Project: **Telenor Myanmar** 

KC2500 Site:

#### 6 TECHNICAL DATA RBS ANTENNA SYSTEM

A= 24.5 A= 160° A= 2<sup>0</sup>/2<sup>0</sup> 6.1 Antenna height (m.a.g.l.) B = 24.5C = 24.5Antenna directions
Mech/Elec Downtilt, deg
Quantity of RRU
Antenna type
Antenna model  $B = 230^{\circ}$   $B = 2^{0}/2^{0}$  $C = 290^{\circ}$   $C = 2^{0}/2^{0}$ 6.2 6.3

6.4

A=2/12 B=2/12 C=2 6 pcs RVV65D-C3-3XR 694–960/2x1695–2690 MHz-65° 2645 x 301 x 180 6.5 6.6

6.7

27.5 6.8

Antenna model
Antenna dimensions (mm)
Weight of one antenna (kg)
Wind load (N) Frontal: 6.9

958 (at 150 km/h) 299 (at 150 km/h) 1125 (at 150 km/h) Lateral: Rear:

6.10 No. of Fiber Optic

#### TECHNICAL DATA RBS ANTENNA SUPPORT STRUCTURE

Tower/mast/pole type Green Field 32m



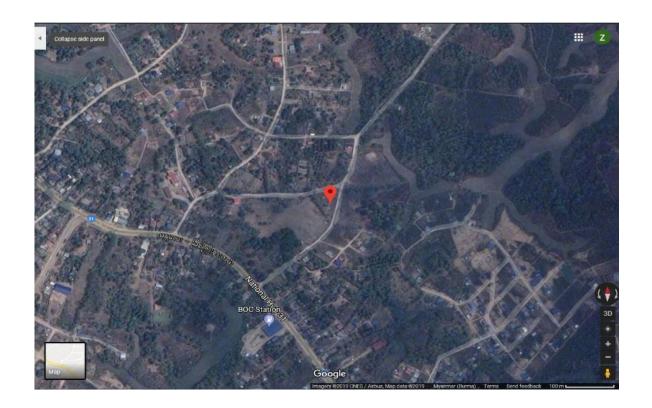
#### **SITUATING PLAN**



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Prepared (also subject responsible if other)	Document No.			
EMZ Zaw Myo Aung		153 38-IPA 166 0344 Uen		
Ö Doc respons/Approved	Checked	Date	Rev.	File
EMZ Manoj Kumar A		2019-06-25	Α	SDD_KC2500_Rev.A

Project: Site: Telenor Myanmar KC2500

Geographical coordinates Address N 24º 15' 42.08" - E 97º 16' 15.89" Bhamo, Kachin





## ANTENNA PLACEMENT INFORMATION



28	Prepared (also subject responsible if other)	Document No.			
4-07-	EMZ Zaw Myo Aung		153 12-IPA 166 C	344 Uen	
201	Doc respons/Approved	Checked	Date	Rev.	File
-A3	EMZ Manoi Kumar A		2019-06-25	Α	SDD KC2500 Rev.A

**Project:** Telenor Myanmar

Site: KC2500

Geographical coordinates N 24° 15′ 42.08″ - E 97° 16′ 15.89″

Address Bhamo, Kachin

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TSSR RND Info	Bearing	Antenna Mid Ht	Tower/Pole Hight (m)	Tower Type	Building High	M Tilt	E Tilt
KC2500_C01_1	160	24.5	32	GBT 🗸		2	2
KC2500_C01_2	230	24.5	32	GBT ✓		2	2
KC2500_C01_3	290	24.5	32	GBT ✓		2	2



#### **GROUNDING INFORMATION**

te	lenor

			OITO OITO IITI	<b>5111111111111111111111111111111111111</b>	
28	Prepared (also subject responsible if other)	Document No.			
4-07-	EMZ Zaw Myo Aung		193 34-IPA 166 034	14 Uen	
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**Project:** Telenor Myanmar

Site: KC2500

Geographical coordinates N 24° 15' 42.08" - E 97° 16' 15.89"

Address Bhamo, Kachin

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# **Not Available**



#### **CABLE WAY DRAWING**

1	telenor

			U/ 12 11/11 21		
58	Prepared (also subject responsible if other)		Document No.		
	EMZ Zaw Myo Aung		193 24-IPA 166 (	0344 Uen	
	Doc respons/Approved	Checked	Date	Rev.	File
PA3	EMZ Manoj Kumar A		2019-06-25	Α	SDD KC2500 Rev.A

**Project:** Telenor Myanmar

Site: KC2500

Geographical coordinates N 24° 15' 42.08" - E 97° 16' 15.89"

Address Bhamo, Kachin

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# **Not Available**







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Project: Site: **Telenor Myanmar** 

KC2500

		Product number	Description	Quantity
•	1 1.1 1.2 1.3 1.4 1.5 1.6	RBS 6601 for 2G 1/BFL901009/4 KDU137569/1 KDU137739/1 KRC161670/1 RNT44732/02 SXK1072896/1	EQUIPPED MAGAZINE/SUP 6601; EQUIPPED MAG PROCESSOR UNIT/DUG 20 01;DIGITAL UNIT PROCESSOR UNIT/TCU 02 01;TRANSPORT CONNE 2G RRU with Radio 2219 B8 CONNECTOR/Circular Power cable connector Pole Bracket, Steel	1 1 1 3 3 3
`	1 2.1 2.1 2.2 2.3 2.4	RBS 6601 for 3G (W21.1) 1/BFL901009/4 'KDU137925/31 KRC161622/1 RNT44732/02 SXK1072896/1	EQUIPPED MAGAZINE/SUP 6601; EQUIPPED MAG PROCESSOR UNIT/Baseband 5216; Digital Un TRANSCEIVER/Radio 2219 B1;Radio Unit CONNECTOR/Circular Power cable connector Pole Bracket, Steel	1 1 3 3 3
`	1 1.1 1.2 1.3	RBS 6601 for 4G KRC161622/1 RNT44732/02 SXK1072896/1	TRANSCEIVER/Radio 2219 B3;Radio Unit CONNECTOR/Circular Power cable connector Pole Bracket, Steel	3 3 3
	3 3.2 4	ANTENNA SYSTEM RVV65D-C3-3XR RET MATERIAL	RVV65D-C3-3XR Tri band antenna	3





ERICSSON #		PLANT SPEC	IFICATIOI	N (RBS) telenor	
Prepared (also subject responsible if other)		Document No.	Document No.		
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ଞ୍ଚି EMZ Manoj Kumar A		2019-06-25	Α	SDD_KC2500_Rev.A	

Project: Site: **Telenor Myanmar** 

KC2500

Oile	102300		
4.1	ATCB-B01-005	RET cable	6
5	CABINET		
5.3	ESOA300FBG10	OUTD-6602-RF SERIES RBS 6601 2.0M	1
5.5	50V500AH_CABINET	BATTERY CABINET DC FAN 50V 500AHCYCLIC	1
6	INSTALLATION MATERIAL		
<b>o</b> 6.1		<del></del>	5 M
	TFL492324/500M	POWER CABLE/2X6 MM2;UL;LSOH;ALU+CU-SCREE	
6.2	TSR951362/3	1/2# JUMPER 4.3-10 MALE / 4.3-10 MALE, 3me	18
6.3	NTM2013727/1	SET OF MATERIALS/TUBE KIT 8,5M	2
6.4	LTRFSEAL300	Silicon box	1
6.5	EAB-LTACCTIECV4830	Plastic tie Strap, 100 pcs/package,	2
6.6	EAB-LTPWACCLUGM825	ACC -25MM2 GROUNDING CABLE 16X CABL	5
6.7	EAB-LTACBOLTM6ZERC	10X NUTS,SCREWS, WASHERS- MOUNTING	1
6.8	TFL492324/500M	POWER CABLE/2X6 MM2;UL;LSOH;ALU+CU-SCREE	360
6.9	EMZ-AC 4x16mm2	AC power cable	10
7	OTICAL CABLE		
7.1	RPM2531610/70M	CABLE WITH CONNECTOR/2F LC(FullAXS)-LC S	9
	200 . 0 . 0// 0/01	5.1212 55.11.125.5.02F 25(Full Mill Mo) 25.5	•



#### **CABLING DIAG. (POWER AND EARTH)**



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58	Prepared (also subject responsible if other)		Document No.		
4-07-	EMZ Zaw Myo Aung	1/193 18-IPA 166 0344 Uen			
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-A3	EMZ Manoj Kumar A		2019-06-25	Α	SDD KC2500 Rev.A

**Project:** Telenor Myanmar

Site: KC2500

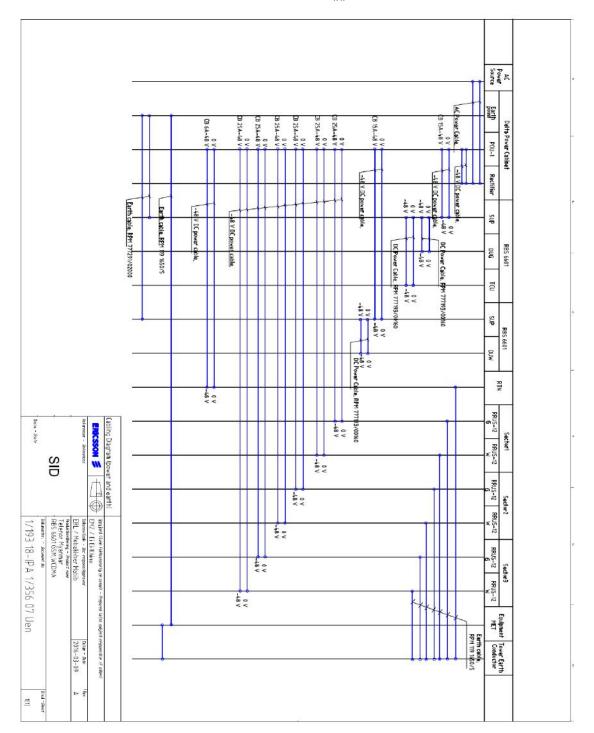
Geographical coordinates

Address

N 24º 15' 42.08" - E 97º 16' 15.89"

Bhamo, Kachin

##





**CABLING DIAG. (SIGNAL AND ANTENNA)** 



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EMZ Manoj Kumar A

Document No.

2/193 18-IPA 166 0344 Uen

Checked

Date

Rev. File

2019-06-25

A SDD\_KC2500\_Rev.A

**Project:** Telenor Myanmar

Site: KC2500

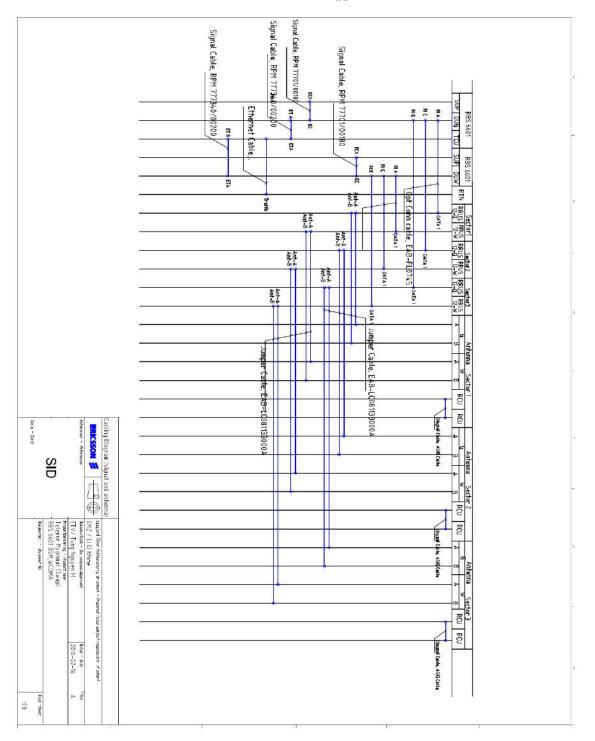
Geographical coordinates

Address

N 24º 15' 42.08" - E 97º 16' 15.89"

Bhamo, Kachin

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#### **ALLOCATION DRAWING (CABINET)**



		71220071110	14 510 (1111110) ( 571	3111E 1 /	
88	Prepared (also subject responsible if other)		Document No.		
4-07-	EMZ Zaw Myo Aung		193 26-IPA 166 0344 Uen		
201	Doc respons/Approved	Checked	Date	Rev.	File
PA3	EMZ Manoj Kumar A		2019-06-25	Α	SDD_KC2500_Rev.A

Project: Telenor Myanmar

Site: KC2500

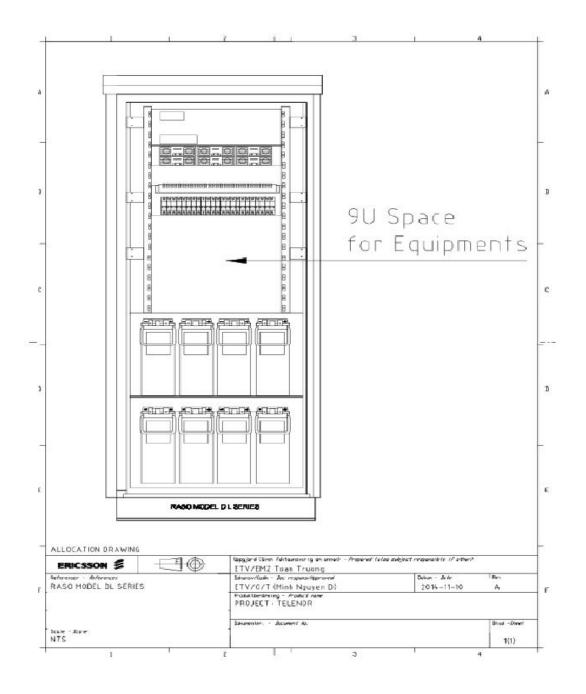
Geographical coordinates

Address

N 24° 15' 42.08" - E 97° 16' 15.89"

Bhamo, Kachin

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#### **ALLOCATION DRAWING**

-	telenor

Prepared (also subject respons EMZ Zaw Myo Aung Doc respons/Approved EMZ Manoj Kumar A Prepared (also subject responsible if other) 193 19-IPA 166 0344 Uen Checked Date Rev. 2019-06-25 SDD\_KC2500\_Rev.A

Project: **Telenor Myanmar** 

KC2500 Site:

**ALLOCATION TABLE: ALARMS** 

#### 1 **RBS 6601 for 2G (G900)**

SI.	Alarm	Туре	Physical port
1	AC MAIN POWER FAILURE	Breaking	1
2	Rectifier Module Failure	Breaking	2
3	LOW BATTERY	Breaking	3
4	Door Open-2	Breaking	5
5	HIGH TEMP (TAH)	Breaking	6
6	DOOR ALARM	Breaking	
7	DC SPD FAULT	Breaking	8
8			4
			7

Closing: the alarm cable is open when no alarms are present Breaking: the alarm cable is closed when no alarms are present

<sup>\*\*</sup> Need to mark from site after alarm configuration



#### **INSTALLATION CHECK LIST- RBS**



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EMZ Zaw Myo Aung
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EMZ Manoj Kumar A Document No. 153 11-IPA 166 0344 Uen Checked Rev. Date 2019-06-25 Α SDD\_KC2500\_Rev.

Project: **Telenor Myanmar** 

KC2500 Site:

#### **INSTALLATION CHECK LIST**

plugs are installed on unused ports? 14 RET cable is correctly connected to ALD ctrl

connector and tightened

OK - Correctly installed NOK - Not Correctly installed N/A - Not applicable

OK = Correctly installed, NOK = Not Correctly installed, N/A = Not applicable						
INSTALLATION CHECK LIST						
OK = Correctly installed, NOK = Not Correctly installed, N/A = Not applicable						
A. CABINET	OK	NOK	N/A	COMMENTS		
Cabinet clean and undamaged	✓					
Cabinet installed according to SID	✓					
Cable lead-in (cable gland)	✓					
PDUs connected to correct fuse	✓					
5. DC cable for RRUs and MU properly connected	✓					
6. Grounded, washers in place and bolts tightened	✓			torque of 15 Nm		
7. Grounding cable insulation undamaged	✓			·		
				•		
B. MAIN UNIT (MU)	OK	NOK	N/A	COMMENTS		
Equipment clean and undamaged	✓					
Installed according to allocation drawing	✓					
3. Minimum 50mm between MU & cabinet door	✓					
4. Minimum 50 mm at the rear of MU	✓					
5. Power cable connected to correct fuse	✓					
All cables in the front properly connected	✓					
7. All screws tightened to correct torque	✓					
No cables damaged	✓					
Equipment labeled according to SID	✓					
10. Grounded, washers in place and bolts tightened	✓					
11. Grounding cable insulation undamaged	✓					
12 All cables have enough extra length to enable the	✓					
removal of the main unit without damaging or						
C. REMOTE RADIO UNIT (RRU)	OK	NOK	N/A	COMMENTS		
RRUS clean and undamaged	✓					
RRU installed as specified in SID	✓					
RRU properly aligned horizontally & vertically	✓					
RRU mounting bracket tightened properly	✓			torque of 41 Nm		
5. RRU Grounding installed and connected to MET	✓					
Connector jumper tightened and sealed	✓			torque of 25 Nm		
7. Installation cover for optical cable tightened	✓			torque of 1.7 Nm		
RET cables routed correctly and tightened	✓					
Power socket securely & correctly attached	✓					
10. Protective covers installed on unused ports	✓					
11 Optical cable undamaged	✓					
12 Equipment labeled according to SID	✓					
13 Protective covers, dust caps, and terminations	✓					
	1					



#### **INSTALLATION CHECK LIST- RBS**



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EMZ Manoj Kumar A Document No. 153 11-IPA 166 0344 Uen Checked Date Rev. File 2019-06-25 Α SDD\_KC2500\_Rev.

Project: **Telenor Myanmar** 

Site: KC2500

D ANTENNA SYSTEM DADIO	OK	NOV	NI/A	COMMENTS
Antenna system - RADIO	OK	NOK	N/A	COMMENTS
. Antenna system installed as specified in SID	<b>→</b>			
2. Height, Azimuth and Tilt checked	<b>→</b>			
No cables or connectors damaged	<b>→</b>			
RF cables properly labeled				
5. Connectors properly connected	<b>√</b>			
6. Minimum bending of the RF cables correct	<b>√</b>			radius of 50mm
7. Correct cable connected to correct antenna port	✓			
RET cable correctly connected & tightened	<b>√</b>			
Optical cables properly connected and strapped	✓			
O. Minimum bending of the optical cables correct	✓			radius of 40mm
11. Antenna support bonded to tower	✓			
2. Tower legs earthed (minimum 2 legs)	✓			
E. CONCLUDING ROUTINES	ОК	NOK	N/A	COMMENTS
. SID marked for as-built	<del>                                   </del>	1	1.47	001111111111111111111111111111111111111
2. Labeling of the external cables	· /	1	1	
Painting of cabinet scratching	<del>'</del>	<del>                                     </del>	<del>                                     </del>	
4. Site area cleaned	<del>'</del>			
D.	+ -			
	] [ YES	] (if no	, speci	fy below)
	] [ YES	] (if no	o, speci	fy below)
All installation activities have been completed [ NO		] (if no	), speci	fy below)
All installation activities have been completed [ NO Problems/Comments (Refer to applicable activity nur		] (if no	p, speci	fy below)
All installation activities have been completed [ NO		] (if no	), speci	fy below)
All installation activities have been completed [ NO Problems/Comments (Refer to applicable activity nur			o, speci	fy below)  Date
All installation activities have been completed [ NO Problems/Comments (Refer to applicable activity nur	mbers)		p, speci	



#### **CHECK LIST (OHS)**



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EMZ Manoj Kumar A Document No. 176 27-IPA 166 0344 Uen Checked Rev. SDD\_KC2500\_Rev.A 2019-06-25

Project: **Telenor Myanmar** 

Site: KC2500

MA	ANPOWER	NOS.
1	Site Supervisor	1
2	Team Leader	1
3	Technician	1
4	Laborers	3
5	Others	

EQUIPMENT USED	NOS.
1 Rope	1
2 Pulley	1
3 GPS	1
4 Tool Kits	1
5 Laptop	1
6	

EQUIPMENT USED	NOS.
7	
8	
9	
10	
11	
12	

wo	RK /	ACTIV	ITIES:

He	alth & Safety Observation/Check list	OK	NOK	N/A	Comments
	Safety Shoe	✓			
	Safety Gloves	✓			
	Safety Helmets	✓			
	Safety Belts	✓			
	Arrangement for Emergency Evacuation	✓			
	Arrangement for Emergency Communication	✓			
	Arrangement for First Aid	✓			
	Arrangement for Toilets / Washing		<b>✓</b>		
	Site Safety Protection		<b>\</b>		
10	Security Guard at site	✓			

## **OTHER MATTERS / ISSUES:**

OHS confirmed by (ASP):	Checked and Verified by: Ericson Myanmar Co. Ltd.
Signature:	Signature:
Print Name:	Print Name:
Date:	Date:
·	





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14-07	EMZ Zaw Myo Aung	0		1/153 83-IPA 160	6 0344 Ue	n
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PA3	EMZ Manoj Kumar A			2019-06-25	Α	SDD_KC2500_Rev.A

Project: **Telenor Myanmar** 

Site: KC2500

## **Test Record for Site Installation Verification**

Date:	Site Name:				
Site No.: <b>KC2500</b>	Cell Configuratio		6601		
RBS 199e: RBS 6601	Testers Name:				
NE Standalone test	Pass	Fail	N/A	Remark	
Incoming voltage verified	7 ass			Koman	
Circuit breaker with correct rating					
Cable connection inspected					
Cables properly labeled	<b>✓</b>				
IDB parameter set	<b>✓</b>				
Fault Status Read	$\checkmark$				
Internal alarm tested	<b>✓</b>				
External alarm tested	✓				
Antenna system test	✓				
Notes:					
Responsible Engineer (Ericsson)					
Name		5	Signature	)	Date
Accepted by (Telenor)					
Name		5	Signature	)	Date

# **Test Record for Antenna System Tests**

Date:	Site name	<b>)</b> :				
Site No.:	Cell Confi					
KC2500 Testers Name:	GSM9	00	RBS 6601			
resters rearrie.						
RBS Type:	Serial Nur	mber (Site	e Master):			
RBS 6601						
Installation check	Cell A					
Jumper Marking:	DX1		DX2	)		
Jumper Length:	3		3		m	
Optical Cable Length:					m	
VSWR:	1.1		1.1		< 1.4	
Cable Attenuation:					db	
	Cell B					
Jumper Marking:	DX1		DX2	)	]	
Jumper Length:	3		3		m	
Optical Cable Length:					m	
VSWR:	1.1		1.1		< 1.4	
Cable Attenuation:					db	
	Cell C					
Jumper Marking:	DX1		DX2	)		
Jumper Length:	3		3		m	
Optical Cable Length:					m	
VSWR:	1.1		1.1		< 1.4	
Cable Attenuation:					db	
	Sector A	Se	ector B	Se	ector C	
Direction	160		230		290	
Mechanical Tilt	2		2		2	
Electrical Tilt-GSM	2		2		2	
Mounting Height						
Responsible Engineer (Erics:	son)					
Name			Signature			Date
Accepted by (Telenor)						

Signature

Name

Date

# **Test Record for Site Integration**

Date:			Site name:									
Site No.: Cell Configuration:												
KC2500		GSM900 RBS 6601										
RBS Type:			Testers Name									
RBS 6601												
[A1.1	ID			IP					VLA	AN		
Abis over	'IP											
OAM												
VOICE, SMS	S, MMS, SPEE	D TES	ST									
											SPEED TE	ST
Cell	MO/MT Voice	e Call	SMS		MMS		Do	wnla	aod	ı	Upload	
Cell 1												
Cell 2												
Cell 3												
Cell 4							-					
Cell 5										_		
Cell 6												
HANDOVER	TEST											
A to E	A to C	;	B to A	B t	to C	C to	Α		C to B		Remar	k
EYTERNAI	ALARM TEST	-										
Alm#	Designation					Туре	Pa	88	Fail		Remarks	
01 0	Dooignation					Closing	1. 0	-	1 (411		tomanto	
02 0						Breaking	1					
03 0												
04 0												
05 0												
06 0												
07 0												
08												
Remarks:												
Kesponsible	Engineer (Erics	sson)										
Name					Signati	ure						Date
Accepted by	(Telenor)											
Name					Signati	ure						Date

## **Test Record for Site Hardware Status**

Date:	Site name:								
Site No.:	Cell Configuration:								
KC2500	GSM900								
RBS Type:	Testers Name:								
##									
Power System									
Unit	Product number	Serial							
DC power									
Rectifier Module #1									
Rectifier Module #2									
Rectifier Module #3									
Rectifier Module #4									
Battery									
Antenna									
Unit	Product number	Serial							
Sector A	RVV65D-C3-3XR	18CN100631431							
Sector B	RVV65D-C3-3XR	SN DAMAGED							
Sector C	RVV65D-C3-3XR	16CN104735504							
RBS Cabinet	<u>.</u>								
Unit	Product number	Serial							
RBS 6601	1/BFL901009/4	C970007998							
DUG 20 01	KDU137569/1	CD3K428459							
TCU-02 01	KDU137739/1	TU8XAF7845							
RRU2219 B8,sector A	KRC161670/1	E550937232							
RRU2219 B8,sector B	KRC161670/1	E550937291							
RRU2219 B8,sector C	KRC161670/1	CD3W479197							
RR02219 Bo,Sector C	KKC101070/1	CD3W479197							
Remarks:									
Responsible Engineer (Ericsson)									
Name	Signature	Date							
Accepted by (Telenor)									
Name	Signature	Date							







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		Checked	Date	Rev.	File	
PA3	EMZ Manoj Kumar A		2019-06-25	Α	SDD_KC2500_Rev.A	

**Project:** Telenor Myanmar

Site: KC2500

# **Test Record for Site Installation Verification**

Date:	Site name:				
Site No.:  KC2500  RBS Type:  RBS 6601	Cell Config W2100 Testers Na	2	2/2/2		
NE Standalone test	Pass	Fail	N/A	Remark	
Incoming voltage verified	$\checkmark$				
Circuit breaker with correct rating	$\checkmark$				
Cable connection inspected	$\checkmark$				
Cables properly labeled	$\checkmark$				
Check configuration	$\checkmark$				
Fault Status Read	$\checkmark$				
Internal alarm tested	$\checkmark$				
External alarm tested	$\checkmark$				
Antenna system test	<b>✓</b>				
Notes:					
Responsible Engineer (Ericsson)					
Name		,	Signature	9	Date
Accepted by (Telenor)					
Name			Signature		 Date







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**Project:** Telenor Myanmar

Site: KC2500

# **Test Record for Antenna System Tests**

Date:	Site name:							
Site No.:	Cell Configuration	on:						
KC2500	W2100 2/2/2							
Testers Name:	1	<del></del>						
RBS Type:	Serial Number (S	Site Master):						
RBS 6601								
Installation check	]							
	Sector 1							
Jumper Marking :	Α	В						
Jumper Length :	3	3	m					
VSWR:	1.1	1.1	< 1.4					
DTF:			< 1.05					
Cable Attenuation:			db					
Lucian an Mardiin a	Sector 2							
Jumper Marking :	A	В						
Jumper Length :	3	3	m					
VSWR:	1.1	1.1	< 1.4					
DTF:			< 1.05					
Cable Attenuation :			db					
	Sector 3							
Jumper Marking :	A	В						
Jumper Length :	3	3	m					
VSWR:	1.1	1.1	< 1.4					
DTF:			< 1.05					
Cable Attenuation:			db					
Responsible Engineer (Ericsson)								
Name		Signature		Date				
Accepted by (Telenor)								
Name		Signature		Date				



telenor

Date

28	EMC550M >		TEST REPORT	RBS - W2	100		
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	EMZ Zaw Myo Aung		2/153 83-IPA 166 0344 Uen				
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Name

Test	Record for	Site Integ	gration				
ate:	Site name:						
te No.:	Cell Configurat	tion: <b>2/2/2</b>					
BS Type:	Testers Name:						
BS 6601							
			IP				Checked
NODE B							011001100
OAM Link							
RNC Name							
OICE, VIDEO, SMS, MMS, SI	PEED TEST	AAODU E TE	TO MAN LA TIME		TUDOL	10115	NIT/ODEED
ector Carrier Voice call	RIGINATING/ Video call		MMS	ز	Downlo		PUT/SPEED Upload
1	viueo call	SIVIS	IVIIVIO		DOWING	au	υριυαί
Sector 1 2							
Sector 2 1							
2							
Sector 3 2							
Sector 4 1							
2							
Sector 5 1							
Sporter 6 1							
2							
ANDOVER TEST							
1 to 2 1 to 3	2 to 1	2 to 3	3 to 1		3 to 2		Remark
XTERNAL ALARM TEST							
Alm# Designation			Туре	Pass	Fail	R	emarks
01			Closing				
02			Breaking				
03							
04							
05 06							
07							
08							
emarks:			•				
esponsible Engineer (Ericssor	n)						
lame		Signa	aturo				Da

Signature







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	EMZ Zaw Myo Aung		2/153 83-IPA 16	6 0344 Ue	n
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PA3	EMZ Manoj Kumar A		2019-06-25	Α	SDD_KC2500_Rev.A

Project: **Telenor Myanmar** 

Site: KC2500

## **Test Record for Site Hardware Status**

Date:	Site name:
Site No.:	Cell Configuration:
KC2500	W2100 2/2/2
RBS Type:	Testers Name:
RBS 6601	

#### **Power System**

Unit	Product number	Serial
DC power		
Rectifier Module #1		
Rectifier Module #2		
Rectifier Module #3		
Rectifier Module #4		
Battery		

#### **Antenna**

Unit	Product number	Serial
694-960/2x1695-2690 MHz-65°	RVV65D-C3-3XR	18CN100631431
694-960/2x1695-2690 MHz-65°	RVV65D-C3-3XR	SN DAMAGED
694-960/2x1695-2690 MHz-65°	RVV65D-C3-3XR	16CN104735504

#### **RBS Cabinet**

Unit	Product number	Serial
RBS 6601	1/BFL901009/4	C970008129
Baseband 5216	KDU137925/31	TD3B349304
RRU2219 B1,sector A	KRC161622/1	CD3T971933
RRU2219 B1,sector B	KRC161622/1	CD3T971934
RRU2219 B1,sector C	KRC161622/1	CD3T971966
RUS 2219 B3,sector A	KRC161619/1	D824982550
RUS 2219 B3,sector B	KRC161619/1	D824951865
RUS 2219 B3,sector C	KRC161619/1	CN31650591

Remarks:		
Responsible Engineer (Ericss	on)	
Name	Signature	Date
Accepted by (Telenor)		
Name	Signature	Date



#### PRODUCT LIST



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1/193 32-IPA 166 0344 Uen

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EMZ Manoj Kumar A

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Date

Rev. File

2019-06-25 A SDD\_KC2500\_Rev.A

**Project:** Telenor Myanmar

Site: KC2500 KC2500 -

<u>UNIT</u>	PRODUCT CODE	<u>REV</u>	SERIAL No.	MFG.DATE
GSM 900	1		1	
RBS 6601	1/BFL901009/4		C970007998	
DUG 20 01;Digital Unit	KDU137569/1		CD3K428459	
TCU 02 01;Transport Con. Unit	KDU137739/1		TU8XAF7845	
RRUS 2219 B8,sector A	KRC161670/1		E550937232	
RRUS 2219 B8,sector B	KRC161670/1		E550937391	
RRUS 2219 B8,sector C	KRC161670/1		CD3W479197	
WCDMA 2100				
RBS 6601	1/BFL901009/4		C970008129	
Baseband 5216	KDU137925/31		TD3B349304	
RRU 2219 B1,sector A	KRC161622/1		CD3T971933	
RRU 2219 B1,sector B	KRC161622/1		CD3T971934	
RRU 2219 B1,sector C	KRC161622/1		CD3T971966	
RUS 2219 B3,sector A	KRC161619/1		D824982550	
RUS 2219 B3,sector B	KRC161619/1		D824951865	
RUS 2219 B3,sector C	KRC161619/1		CN31650591	
ANTENNA				
Sec1- 694-960/2x1695-2690 MHz	2-65° RVV65D-C3-3XR		18CN100631431	
Sec2- 694-960/2x1695-2690 MHz			SN DAMAGED	
Sec3- 694-960/2x1695-2690 MHz			16CN104735504	
RET				
RCU136 Cell A GSM	27150136		N/A	
RCU136 Cell B GSM	27150136		N/A	
RCU136 Cell C GSM	27150136		N/A	
RCU136 Cell A UMTS	27150136		N/A	
RCU136 Cell B UMTS	27150136		N/A	
RCU136 Cell C UMTS	27150136		N/A	
CABINET				
ESOA300FBG10	ESOA300FBG10		HY5161700607W0	
EAB-ESR4856BAS	DPR 2900C		VI175001341W0	
EAB-ESR4856BAS	DPR 2900C		VI143210227W0	
EAB-ESR4856BAS	DPR 2900C		VI161104267W0	
EAB-ESR4856BAS	DPR 2900C		VI143210205W0	
Potevio	50V500AH_CABIN		SN DON'T HAVE	
Lithium Ion Battery 48V,100Ah	UIFP48V100AH-1		4810019C180300	1-4
Lithium Ion Battery 48V,100Ah	UIFP48V100AH-1		P48100XA32180728	3174
Lithium Ion Battery 48V,100Ah	UIFP48V100AH-1		4810019C180298	
Lithium Ion Battery 48V,100Ah	UIFP48V100AH-1		4810019C180299	
Lithium Ion Battery 48V,100Ah	UIFP48V100AH-1		4810019C180255	



Project: **Telenor Myanmar**Site: **KC2500**Site Location









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₹ EMZ Manoi Kumar A	1	2019-06-25	Α	SDD KC2500 Rev.A	

Project: Telenor Myanmar Site: KC2500 Vertical Cable Ladder









ERICSSON SITE PHOTO

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EMZ Manoj Kumar A

SITE PHOTO

Document No.
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2019-06-25

A SDD\_KC2500\_Rev.A

Project: Telenor Myanmar Site: KC2500 Antenna Cell C









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SITE PHOTO



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14-0	EMZ Zaw Myo Aung		PHT-09:0001-IPA 166 0344 Uen		
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Ą	EMZ Manoi Kumar A		2019-06-25	Α	SDD KC2500 Rev.A

Project: Telenor Myanmar Site: KC2500 RRU2219 B1 Cell A















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140	EMZ Zaw Myo Aung		PHT-09:0001-IPA 166 0344 Uen		
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Α̈́	FMZ Manoi Kumar A		2019-06-25	Δ	SDD KC2500 Rev A















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Project: Telenor Myanmar
Site: KC2500
Cabinet (Close)





Cabinet (Open)











	SILE FRUID	SITE PHOTO			
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EMZ Zaw Myo Aung		PHT-09:0001-I	PHT-09:0001-IPA 166 0344 Uen		
Doc respons/Approved	Checked	Date	Rev.	File	
₹ EMZ Manoi Kumar A	1	2019-06-25	Α	SDD KC2500 Rev.A	

Project: Site:

oject: Telenor Myanmar te: KC2500 External Alarm connection (with clear Label)





External Alarm connection (with clear Label)





ERICSSON # telenor SITE PHOTO Prepared (also subject responsible if other) EMZ Zaw Myo Aung
Doc respons/Approved
EMZ Manoj Kumar A PHT-09:0001-IPA 166 0344 Uen

Project: Site: Telenor Myanmar KC2500



















**Documents Number** 



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	epared (also subject responsible if other)		Document No.			
	EMZ Zaw Myo Aung		179 61-IPA 166 0344 Uen			
	Doc respons/Approved	Checked	Date	Rev.	File	
PA3	EMZ Manoj Kumar A		2019-06-25	Α	SDD KC2500 Rev.A	

Project: **Telenor Myanmar** 

Site: KC2500

#### NETWORK ELEMENT ACCEPTANCE CERTIFICATE

This is to certify that Ericsson Radio Systems AB has delivered, installed and tested the Network Elements on site KC2500 as defined in PO\_NS\_000017 and PO\_NS\_000018

PO RBS: PO\_NS\_000017 PO TRM: PO\_NS\_000018

PO Antenna:

**TEST DOCUMENTS** 

The Network element acceptance has been performed in accordance with the procedures described in above mentioned contract. Further reference should be made to the acceptance documents. The Network element passed the acceptance with remarks per attached test report.

RBS 6601 Test Report - G900 RBS 6601 Test Report - W2100	## 2/153 83-IPA 166 0344 Uen rev A
Test Report (TRM Functional)	##
Date:	
for	for
<b>Telonor</b> (The Buyer)	Ericsson Myanmar (The Vendor)
Name:	Name:
Title:	Title: