

# RADIO SITE DESIGN DOCUMENTATION

Region: South Site ID: AY1135 ERICSSON S

CAPTION LIST

Document No.
001 53-IPA 165 5575/AY1135 Uen

Date
2016-08-03

Rev.
A

# SITE DESIGN DOCUMENTATION



# AY1135 GSM900 & WCDMA2100 Huawei DBS3900

#### **ATTENTION**

This documentation must be updated on site. All the documents must be corrected, where changes have occurred, and signed by the Installation Supervisor.

This documentation must then be returned to Installation Engineering for hand-over to Customer.

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#### **DOCUMENT LIST**

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Prepared (also	Prepared (also subject responsible if other)		Document No.		
EMZ/ Toar	n Truong		001 51-IPA 165	5575/AY11	I35 Uen
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₹ ETV/OJA Hung Ngo		2016-08-03	Α	SDD_AY1135_A	

**Project: Telenor Myanmar** 

Site: **AY1135** 

Document name	Document number	Rev.
SITE DESIGN DOCUMENTATION	001 53-IPA 165 5575/AY1135 Uen	Α
DOCUMENT LIST Document List	001 51-IPA 165 5575/AY1135 Uen	Α
SITE DOCUMENTS Configuration Data RBS Situating Plan Antenna Placement Information Cable way Drawing	001 51-IPA 165 5575/AY1135 Uen 153 38-IPA 165 5575/AY1135 Uen 153 12-IPA 165 5575/AY1135 Uen 193 24-IPA 165 5575/AY1135 Uen	A A A
PLANT SPECIFICATION Plant Specification (RBS)	1/127 11-IPA 165 5575/AY1135 Uen	Α
CABLING DIAGRAM Cabling Diagram (power and earth) Cabling Diagram (signal and antenna) Allocation Drawing (Cabinet)	1/193 18-IPA 165 5575/AY1135 Uen 2/193 18-IPA 165 5575/AY1135 Uen 193 26-IPA 165 5575/AY1135 Uen	A A A
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	SITE DESIGN DOCUMENTATION  DOCUMENT LIST Document List  SITE DOCUMENTS Configuration Data RBS Situating Plan Antenna Placement Information Cable way Drawing  PLANT SPECIFICATION Plant Specification (RBS)  CABLING DIAGRAM Cabling Diagram (power and earth) Cabling Diagram (signal and antenna) Allocation Drawing (Cabinet)  EXTERNAL ALARM Allocation Table  CHECK LISTS Installation Check List OHS Check List  TEST DOCUMENTS RBS Test Report - G900 RBS Test Report - W2100  ACCEPTANCE CERTIFICATE Acceptance Certificate Product List	SITE DESIGN DOCUMENTATION   001 53-IPA 165 5575/AY1135 Uen

#### 9 OTHERS

Label Sheets



#### CONFIGURATION DATA RRS



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**Project: Telenor Myanmar** 

Site: AY1135

#### 1 GENERAL SITE DATA

1.1 Geographical coordinates Long: 94.29881 Lat: 16.52

1.2 Region South

1.3 Address Ngapudaw Township Ayeyarwaddy State
 1.4 Type of Site Green Field
 1.5 Equipment location Outdoor cabinet
 1.6 Floor material Concrete

## 2 TECHNICAL DATA RBS SYSTEM GSM900

2.1 GSM900 System RBS type 2.2 Huawie DBS3900 No. of sector 2.3 3 2.4 No. of carrier 4/4/4 No. of Remote Radio Unit (RRU) 2.5 3 2.6 RRU type RRU3959

2.6 RRU type RRU3959
2.7 Mechanical Dimensions RRU (mm) WxDxH 300x120x400

2.8 Weight for one RRU 14kg / 15kg (with cover)

WCDMA2100

2.9 System WCDMA2100

2.10 No. of sector 3
2.11 No. of carrier 2/2/2
2.12 No. of Remote Radio Unit (RRU) 3
2.13 RRU type RRU3839
2.14 Mechanical Dimensions RRU (mm) WyDyH 300y120y

2.14 Mechanical Dimensions RRU (mm) WxDxH 300x120x400

2.15 Weight for one RRU 14kg / 15kg (with cover)

2.16 Mechanical Dimensions DBS(mm) WxDxH
2.17 Weight for one DBS (fully equiped)
2.18 Power supply
442x310x86
12kg
-48V DC

2.19 Power consumption (maximum) 300W (DBS) + 350W (RRU)

2.20 Mains circuit breaker 30A + 6x30A

2.21 Heat dissipation of DBS (maximum) 300W (with FAN) / 650W (with FANc)

#### 3 TECHNICAL DATA CABINET

3.1 Type of cabinet TP48200A

3.2 Mechanical Dimensions (mm) WxDxH 650Wx650Dx1000H

3.3 Free space for equipment 16U

#### 4 TECHNICAL DATA RBS ANTENNA SYSTEM

 4.1
 Antenna height (m.a.g.l.)
 A= 45
 B= 45
 C= 45

 4.2
 Antenna directions
 A= 70°
 B= 160°
 C= 290°

 4.3
 Mech/Elec Downtilt, deg
 A= 2°/0°
 B= 2°/0°
 C= 2°/0°

4.4 Quantity of Antenna 3 pcs

4.5 Antenna model ADU451807v01

4.6 Antenna type DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M

4.7 Antenna dimensions LxWxD (mm) 2535 x 259 x 135

4.8 Weight of one antenna (kg) 21

4.9 Wind load (N) Frontal: 910 (at 150 km/h)
Lateral: 470 (at 150 km/h)

Rear: 1200 (at 150 km/h)

4.10 No. of Fiber Optic4.11 Length of Fiber Optic6 pcs80m

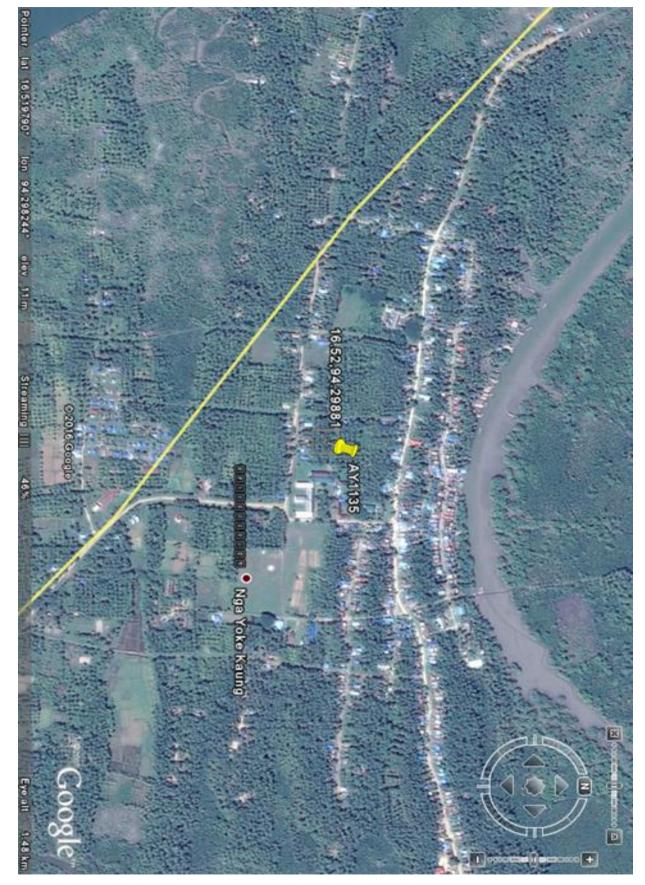
#### 5 TECHNICAL DATA RBS ANTENNA SUPPORT STRUCTURE

5.1 Tower/mast/pole type GBT 45m

Project: Telenor Myanmar
Site ID: AY1135
Drawing: Situating Plan Drawing
153 38-IPA 165 5575/AY1135 Uen

Geographical coordinates

Long (E): 94 ° 17 ' 55.72 " Lat (N): 16 ° 31 ' 12.00 "

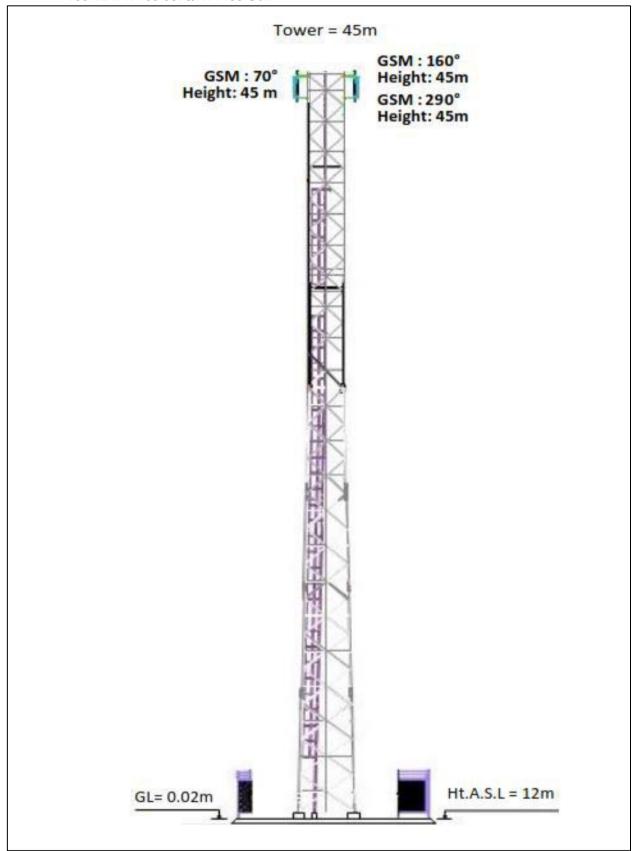


Site ID: AY1135
Drawing: Antennas Placement Drawing

153 12-IPA 165 5575/AY1135 Uen

Geographical coordinates

Long (E): 94 ° 17 ' 55.72 " Lat (N): 16 ° 31 ' 12.00 "



Site ID: AY1135

**Drawing: Cable Way Drawing** 

193 24-IPA 165 5575/AY1135 Uen

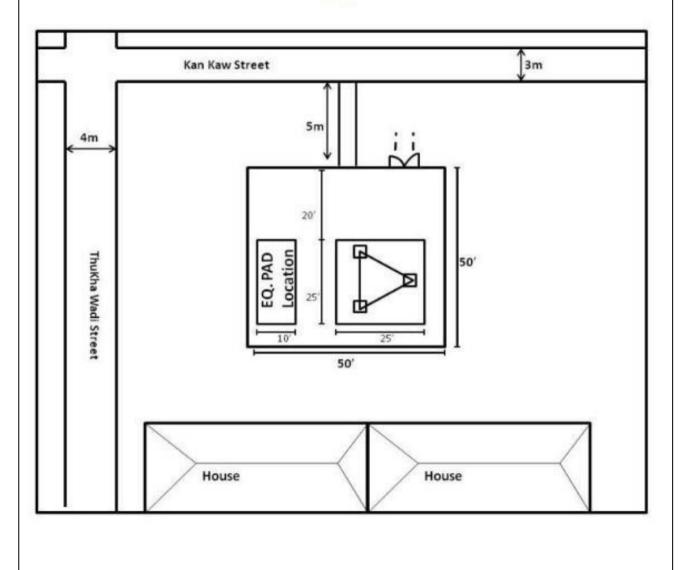
Geographical coordinates

Long (E): 94 ° 17 ' 55.72 " Lat (N): 16 ° 31 ' 12.00 "



AY 1135 Candidate 01 Site Sketch

#### NORTHING SITE AZIMUTH 270 degree





PLANT SPECIFICATION (RBS)



		Document No.		
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Project Telenor Myanmar Site: AY1135

No. WH No. DESCRIPTION QTY/ UNIT

#### 1. DBS3900 EQUIPMENT

1.1 DBS3900 (GSM	S4/4/4+WCDMA S2/2/2), DC -48V
29080025	MBTS DBS Cable Suite Label

٠.	DD33300 (G318) 34	14/4+**CDMA 32/2/2), DC -40*	
	29080025	MBTS DBS Cable Suite Label	1 PCS
	02319940	BBU Box	1 PCS
	02315639	Universal Environment Interface control Unit	1 PCS
	03054887	Universal Main Processing & Transmission Unit (4 E1&1 Electrical FE/GE&1	1 PCS
	03054885	Universal Main Processing & Transmission unit with 4E1 and 2FE/GE inte	1 PCS
	04050386	IT Equipment Cable, For BBU local maintenance adapter, 0.38m, USB3.0 s	1 PCS
	34060365	Optical Transceiver,eSFP,850nm,4.25G multi-rate,-9dBm~-1.5dBm,-15dBm,	6 PCS
	02311AHG	RRU3959 for Multi-mode 900MHz (2*60W)	3 pcs
	02239349	3900 Series DBS,Site Auxiliary Material Kit(G/U/L)	1 PCS
	29040907	DKBA8.807.0202, Outdoor label, cBTS3612,55*20*0.5, GE 8B35, T0.5	4 PCS
	29080032	Feeder Engineering label(Multi-Feeder System)	4 PCS
	29080025	MBTS DBS Cable Suite Label	1 PCS
	29040907	DKBA8.807.0202, Outdoor label, cBTS3612,55*20*0.5, GE 8B35, T0.5	4 PCS
	29080032	Feeder Engineering label(Multi-Feeder System)	4 PCS
	34060365	Optical Transceiver,eSFP,850nm,4.25G multi-rate,-9dBm~-1.5dBm,-15dBm,	6 PCS
	02310TQF	RRU3839 for WCDMA 2100M (2*60W)	3 PCS
	03022HEM	Universal Baseband Processing Unit d6	1 PCS
	02237428	DBS Antenna Feeder Installation Auxiliary Kit Per Sector, General Area	6 PCS
	04130065	RF Cable,2m,DIN50SM-II,COAX50-8.7/3.55,DIN50SM-II,1/2 Inch Superflexil	12 PCS
	04070012	Signal Cable, Shielded Straight Through Cable, 10m, MP8-II, CC4P0.5GY(S), N	1 PCS
	25030191	Wire,450/750V,60227 IEC 02(RV) 6mm^2, Yellow/Green,44A(Unit: meter)	2 M

#### 1.2 Installation cable

14130792	80m, Optical Cable Assembly, DLC/PC, DLC/PC, Multi-mode, GYFJH 2A1a(LS 6	PCS
25030429	Wire,450/750V,60227 IEC 02(RV)16mm^2, yellow green,85A, With a package 18	B M
25030671	Power Cable,300V,UL2464,3.31mm^2,2x12AWG,Black Jacket(2Cores:Blue, 360	M
27150086	Fixing clip, locked 3pcs optical cables and 3pcs power cables, 1 board 6, Stair 60	PCS

#### 2. ANTENNA SYSTEM

27010881-001	Directional Antenna, DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M,4*7/16 L	3 PCS
27150243	Downtilt Kit-C Type	3 PCS

#### 3. RET MATERIAL

04070097	Signal Cable, AISG Communication cable, 5m, D9M+D9(PS)(W), CC4P0.5PB(	6 PCS
27150136	Antenna Feeder Accessories, RCU136, Agisson RET Antenna RCU, Antenna,	6 PCS

#### 4. CABINET

OMBINE		
01072280	Outdoor Cabinet, TP48200E	1 PCS

INSTALLATION MA	ATERIALS	
02120731	DC Power Distribution Unit	3 PCS
33010089	Liquid Level Sensor-D18*77mm-Cable Length 2700mm Chinese Documents	1 PCS
04080088	Monitor&Alarm Cable,1.7m,H2(2.5),2*22UL3385B,2*T0.5^2N	1 PCS
33010293	Smoke Sensor,24V,Two Line, Photoelectric Smoke Sensor, HotBar	1 PCS
23050077	Indicator,Round,41mm,White, lighting lamp for Equipment Box,48V	1 PCS
14180178	Termi-block Stacking Connector, 2PIN, Screw Contact, 24~12AWG, Male and	2 PCS
33010286	Environment Temperature Sensor	1 PCS
02231GJH	Embedded Environment Monitoring Unit	1 PCS
02236397	Single power supply Rack Power Cable OT Terminal	3 PCS
02230FDF	Auxiliary Material Kit	1 PCS
21241130	PE bar	1 PCS
04080084	Monitor&Alarm Cable,EMUA Alarm Cable,2.0m,D9M,CC4P0.48B(S),MP8-VI	1 PCS
04150052	Power Cable, 0.4m, 6mm^2, Yellow&Green, OT6-4, H07Z-K-6^2G&Y, OT6-6, LS	4 PCS
28040011	Heat-Shrink Tube/D11/Radial Shrinkage Ratio>50%/Black	10 CM
14170020	Naked Crimping Terminal, OT, 16mm^2, M6, Tin Plating, Naked Ring Terminal	12 PCS
25030586	Power Cable,450V/750V,H07Z-K UL3386,16mm^2,Blue,107A,LSZH Cable,\	20 M
25030639	Power Cable, 450V/750V, H07Z-K UL3386, 16mm^2, Black, 107A, LSZH Cable,	20 M
14170097	Common Terminal, Conductor Cross Section 1.5mm^2,7.5A, Tin Plating, Insen	4 PCS
14170002	Naked Crimping Terminal, OT, 1.5mm^2, M4, Tin Plating, Insulated Ring Termin	4 PCS
14170014	Naked Crimping Terminal, OT, 1.5mm^2, M6, Tin Plating, Insulated Ring Termin	4 PCS
25030705	Power Cable,600V,UL3386,16AWG,Blue,24A,UL (Unit:meter)	2 M
25030704	Power Cable,600V,UL3386,16AWG,Black,24A,UL (Unit:meter)	2 M
25030315	Power Cable,600V,UL1015,22AWG,Red,10A,UL (Unit:meter)	3 M
25030317	Power Cable,600V,UL1015,22AWG,Black,7A,UL (Unit:meter)	3 M
14110097	Common Terminal, Single Cord End Terminal, Conductor Cross Section 0.5m.	6 PCS
25050174	Twisted-Pair Cable,100ohm,SEYVP,0.48mm,26AWG,2 Pairs,Black	3 M
14110114	Common Terminal, Single Cord End Terminal, Conductor Cross Section 0.25r	12 PCS
25030429	Wire,450/750V,60227 IEC 02(RV)16mm^2,yellow green,85A,With a package	6 M



#### **ALLOCATION DRAWING**

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**Project:** Telenor Myanmar

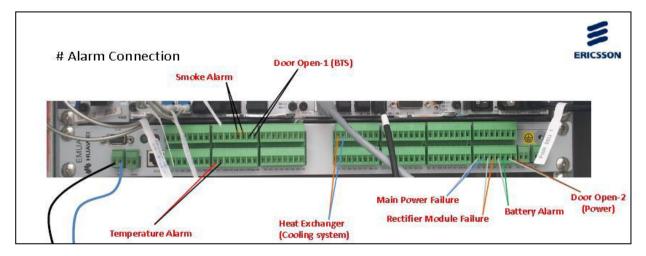
**Site: AY1135** 

#### **ALLOCATION TABLE: ALARMS**

#### 1. DBS3900

#### **Temperature**

No.	Alarm	Туре	Physical port
1	Main Power Failure	Breaking	
2	Rectifier Module Failure	Breaking	
3	Battery Alarm	Breaking	
4	Door Open-1 (BTS)	Breaking	
5	Door Open-2 (Power)	Breaking	
6	Temperature Alarm	Breaking	
7	Smoke Alarm	Breaking	
8	Heat Exchange	Breaking	



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

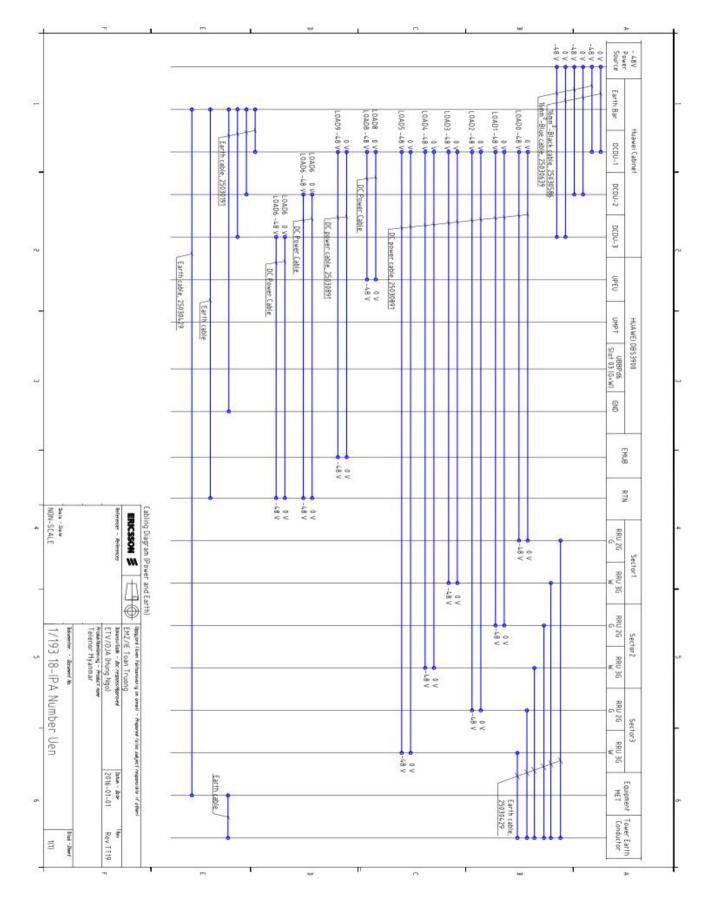
<sup>\*\*</sup> Need to mark from site after alarm configuration

Site ID: AY1135

**Geographical coordinates** 

Long (E): 94 ° 17 ' 55.72 " Lat (N): 16 ° 31 ' 12.00 "

Drawing: Cabling Diagram (Power and Earth) 1/193 18-IPA 165 5575/AY1135 Uen



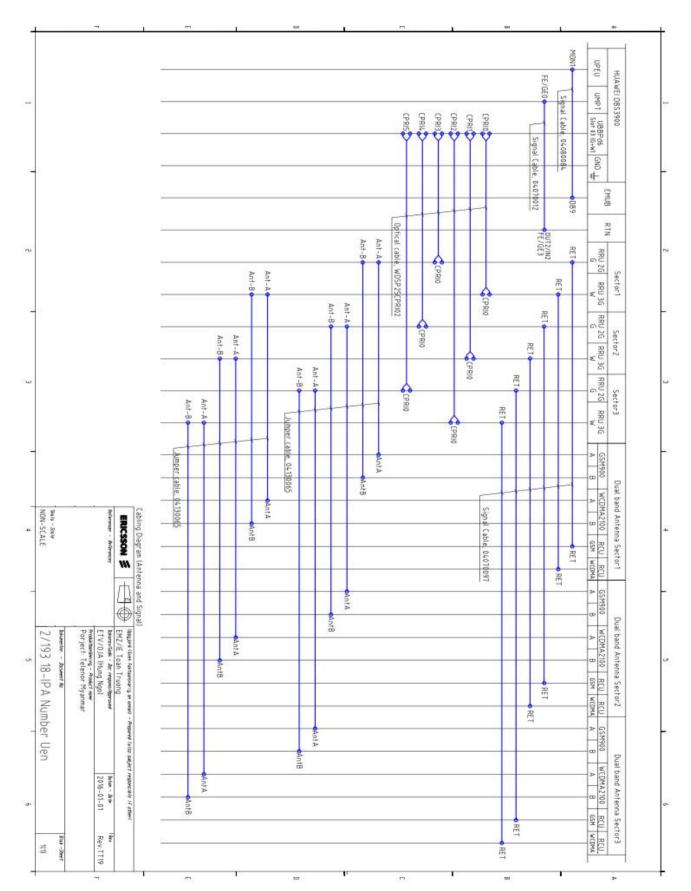
Site ID: AY1135

**Drawing: Cabling Diagram (Sgnal & Antenna)** 

2/193 18-IPA 165 5575/AY1135 Uen

**Geographical coordinates** 

Long (E): 94 ° 17 ' 55.72 " Lat (N): 16 ° 31 ' 12.00 "



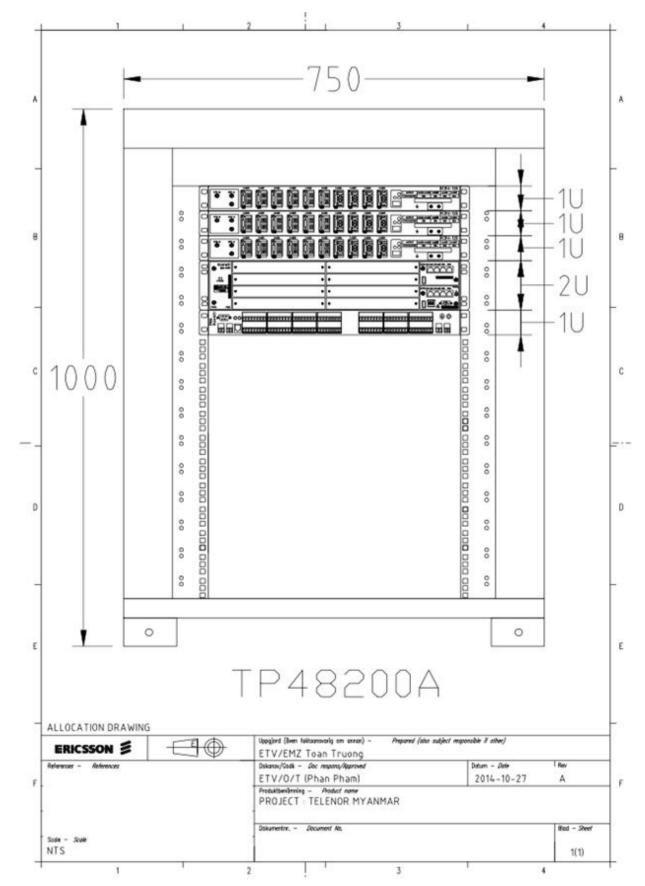
Site ID: AY1135

**Drawing: Allocation Drawing Cabinet** 

193 26-IPA 165 5575/AY1135 Uen

Geographical coordinates

Long (E): 94 ° 17 ' 55.72 " Lat (N): 16 ° 31 ' 12.00 "





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

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**Project:** Telenor Myanmar

**Site:** AY1135

#### **INSTALLATION CHECK LIST**

OK = Correctly installed, NOK = Not Correctly installed, N/A = Not applicable

A.	CABINET	OK	NOK	N/A	COMMENTS
1.	Cabinet clean and undamaged	OK			
2.	Cabinet installed according to SID	OK			
3.	Cable lead-in (cable gland)	ОК			
4.	DCPU connected to correct fuse	OK			
5.	DC cable for RRU and BBU properly connected	OK			
6.	Grounded, washers in place and bolts tightened	OK			
7.	Grounding cable insulation undamaged	OK			

B.	BBU Box	OK	NOK	N/A	COMMENTS
1.	Equipment clean and undamaged	OK			
2.	Installed according to allocation drawing	OK			
3.	BBU securely fixed to rack or cabinet	OK			
4.	Boards are firmed fixed in slot; screws are fasten	OK			
5.	Power cable connected to correct fuse	OK			
6.	All cables in the front properly connected	OK			
7.	All screws tightened to correct torque	OK			
8.	No cables damaged	OK			
9.	Equipment labeled according to SID	OK			
10.	Grounded, washers in place and bolts tightened	OK			
11.	Grounding cable insulation undamaged	OK			
	All cables have enough extra length to enable the	OK			
12.	removal of the BBU without damaging or				
	disconnecting the cables?				

C.	RRU (REMOTE RADIO UNIT)	OK	NOK	N/A	COMMENTS
	RRU clean and undamaged	ΟK			
2.	RRU installed as specified in SID	ΟK			
3.	RRU properly aligned horizontally & vertically	OK			
4.	RRU mounting bracket tightened properly	OK			
5.	RRU Grounding installed and connected to MET	ΟK			
6.	Connector jumper tightened and sealed	OK			
	Installation cover for optical cable tightened	OK			
8.	RET cables routed correctly and tightened	ΟK			
9.	Power socket securely & correctly attached	OK			
10.	Protective covers installed on unused ports	ΟK			
	Optical cable undamaged	OK			
12.	Equipment labeled according to SID	OK			
13.	Protective covers, dust caps, and terminations	ΟK			
13.	plugs are installed on unused ports?				
14.	RET cable is correctly connected to ALD ctrl	OK			
14.	connector and tightened				





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Project:	Telenor	<b>Myanmar</b>
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Sit

ANTENNA SYSTEM - RADIO  Antenna system installed as specified in SID  Height, Azimuth and Tilt checked  No cables or connectors damaged  RF cables properly labeled  Connectors properly connected  Minimum bending of the RF cables correct  Correct cable connected to correct antenna port  RET cable correctly connected & tightened  Optical cables properly connected and strapped  Minimum bending of the optical cables correct  Antenna support bonded to tower  Tower legs earthed (minimum 2 legs)  CONCLUDING ROUTINES  SID marked for as-built  Labeling of the external cables  Painting of cabinet scratching  Site area cleaned  OK  NOK N/A COMMENTS  I installation activities have been completed [ NO ] [ YES ] (if no, specify below)		ANTENNA OVOTEM DADIO	1014	NOK	NI/A	COMMENTO
Height, Azimuth and Tilt checked  No cables or connectors damaged  RF cables properly labeled  Connectors properly connected  Minimum bending of the RF cables correct  Correct cable connected to correct antenna port  RET cables properly connected & tightened  Optical cables properly connected and strapped  Minimum bending of the optical cables correct		ANTENNA SYSTEM - RADIO	OK	NOK	N/A	COMMENTS
No cables or connectors damaged RF cables properly labeled Connectors properly connected Minimum bending of the RF cables correct Correct cable connected to correct antenna port RET cable correctly connected & tightened Optical cables properly connected and strapped Minimum bending of the optical cables correct OK Minimum bending of the optical cables correct Antenna support bonded to tower Tower legs earthed (minimum 2 legs)  CONCLUDING ROUTINES SID marked for as-built Labeling of the external cables Painting of cabinet scratching Site area cleaned  OK NOK N/A COMMENTS  I YES ] (if no, specify below)				-	1	
RF cables properly labeled Connectors properly connected Minimum bending of the RF cables correct Correct cable connected to correct antenna port RET cable correctly connected & tightened Optical cables properly connected and strapped Minimum bending of the optical cables correct Minimum bending o						
Connectors properly connected  Minimum bending of the RF cables correct  OK  RET cable connected to correct antenna port  RET cable correctly connected & tightened  Optical cables properly connected and strapped  Minimum bending of the optical cables correct  Antenna support bonded to tower  Tower legs earthed (minimum 2 legs)  CONCLUDING ROUTINES  SID marked for as-built  Labeling of the external cables  Painting of cabinet scratching  Site area cleaned  OK  I YES ] (if no, specify below)	_					
Minimum bending of the RF cables correct  Correct cable connected to correct antenna port  RET cable correctly connected & tightened Optical cables properly connected and strapped Minimum bending of the optical cables correct  Minimum bending of the optical cables or cables correct  Minimum bending of the optical cables or cables correct  Minimum bending of the optical cables or ca	_					
Correct cable connected to correct antenna port RET cable correctly connected & tightened Optical cables properly connected and strapped OM Optical cables properly connected and strapped OM Minimum bending of the optical cables correct OM Antenna support bonded to tower Tower legs earthed (minimum 2 legs) OM  CONCLUDING ROUTINES OM NOK N/A COMMENTS SID marked for as-built DM Labeling of the external cables Painting of cabinet scratching Site area cleaned OM  Installation activities have been completed [ NO ] [ YES ] (if no, specify below)	_					
RET cable correctly connected & tightened Optical cables properly connected and strapped Ok Minimum bending of the optical cables correct Antenna support bonded to tower Tower legs earthed (minimum 2 legs)  CONCLUDING ROUTINES SID marked for as-built Labeling of the external cables Painting of cabinet scratching Site area cleaned  OK  NOK N/A COMMENTS  OK  Painting of cabinet scratching OK Site area cleaned  OK  Installation activities have been completed [ NO ] [ YES ] (if no, specify below)	_					radius of 50mm
Optical cables properly connected and strapped  Minimum bending of the optical cables correct  Antenna support bonded to tower  Tower legs earthed (minimum 2 legs)  CONCLUDING ROUTINES SID marked for as-built  Labeling of the external cables Painting of cabinet scratching Site area cleaned  OK  NOK N/A  COMMENTS  OK  Painting of cabinet scratching OK  Site area cleaned  OK  Installation activities have been completed [ NO ] [ YES ] (if no, specify below)	_					
D. Minimum bending of the optical cables correct D. Antenna support bonded to tower D. Tower legs earthed (minimum 2 legs)  CONCLUDING ROUTINES D. NOK NOK N/A COMMENTS SID marked for as-built Labeling of the external cables Painting of cabinet scratching D. NOK NOK N/A COMMENTS D. NOK N/A	_					
I. Antenna support bonded to tower 2. Tower legs earthed (minimum 2 legs)  CONCLUDING ROUTINES SID marked for as-built Labeling of the external cables Painting of cabinet scratching Site area cleaned  I installation activities have been completed [ NO ] [ YES ] (if no, specify below)						
CONCLUDING ROUTINES SID marked for as-built Labeling of the external cables Painting of cabinet scratching Site area cleaned OK Site area cleaned						radius of 40mm
CONCLUDING ROUTINES SID marked for as-built Labeling of the external cables Painting of cabinet scratching Site area cleaned OK Site area cleaned OK  I installation activities have been completed [ NO ] [ YES ] (if no, specify below)						
SID marked for as-built  Labeling of the external cables  Painting of cabinet scratching  Site area cleaned  OK  OK  Site area cleaned  Installation activities have been completed [ NO ] [ YES ] (if no, specify below)	_	Tower legs earthed (minimum 2 legs)	_lok_			
SID marked for as-built  Labeling of the external cables  Painting of cabinet scratching  Site area cleaned  OK  OK  Site area cleaned  OK  Installation activities have been completed [ NO ] [ YES ] (if no, specify below)		CONCLUDING ROUTINES	ОК	NOK	N/A	COMMENTS
Labeling of the external cables Painting of cabinet scratching Site area cleaned OK  Installation activities have been completed [ NO ] [ YES ] (if no, specify below)	_					
Painting of cabinet scratching Site area cleaned  OK  Installation activities have been completed [ NO ] [ YES ] (if no, specify below)	_					
installation activities have been completed [ NO ] [ YES ] (if no, specify below)			ок			
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oblems/Comments (Refer to applicable activity numbers)	i	istallation activities have been completed [ NO	] [ <b>YE</b>	<b>S</b> ] (if	no, sp	ecify below)
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Signature:	Signature:
Print Name:	Print Name:
Date:	Date:

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#### CHECK LIST (OHS)



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Rev	ETV/OJA Hung Ngo		2016-08-03	Α	SDD AY1135 A	

Project:	Telenor	Myanmar
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Date:

MANPOWER	NOS.	EQUI	PMENT (	JSED		NOS.
Site Supervisor		1				
2 Team Leader		2				
3 Technician		3				
4 Laborers		4				
5 Others		5				
6		6				
7		7				
8		8				
9		9				
10	$\longrightarrow$	10				
11 12	$\longrightarrow$	11 12				$-\!$
12		14				
Health & Safety Observation	n/Check list	ОК	NOK	N/A	Comments	
1 Safety Shoe	W G 112 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ОК	1	1	1000	
2 Safety Gloves		ОК	<u> </u>	1	<u> </u>	
3 Safety Helmets		ОК	<b>†</b>	<b>†</b>	<b>1</b>	
4 Safety Belts		OK				
5 Arrangement for Emergen	cy Evacuation	OK				
6 Arrangement for Emergen	cy Communication	OK	<u> </u>	<u> </u>		
7 Arrangement for First Aid		ОК	$\bot$			
8 Arrangement for Toilets /	Washing					
9 Site Safety Protection		OK				
10 Security Guard at site						
OTHER MATTERS / ISSUES	<u>i</u>					
CUIC confirmed by (ASD):		Chapked	and Vari	"d by y	Frieden Myon	
OHS confirmed by (ASP):		Checked	and Veri	fied by:	Ericson Myar	ımar Co. L
OHS confirmed by (ASP):		Checked	and Veri	fied by:	Ericson Myar	ımar Co. L
OHS confirmed by (ASP):		_ Checked Signature		fied by:	Ericson Myar	ımar Co. L

Date:

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#### **TEST REPORT RBS - G900**

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	ETV/OJA Hung Ngo		2016-08-03	Α	SDD AY1135 A

Telenor Myanmar AY1135 Project: Site:

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

Tester Name:	<del></del> _		Date:	
XXX Site ID:			XXX Site Na	mo:
AY1135		_	XXX	
RBS Type:				nfiguration:
Huawie DBS3900			G900	- S4/4/4
NE Standalone test	Pass	Fail	N/A	Remark
Incoming voltage verified	٧			
Circuit breaker with correct rating	٧			
Cable connection inspected	٧			
Cables properly labeled	٧			
Check configuration	٧			
Fault Status Read	٧			
Internal alarm tested	٧			
External alarm tested	٧			
Antenna system test	٧			
Notes:				
Accepted by (Telenor)			Resp	onsible Engineer (Ericsson)
Signature:			_	ature:
Print Name:				Name:
Date:			Date:	

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	lso subject responsible if other)		Document No.		
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Project:	Telenor Myanmar				

Project:	Telenor	Myanmar
<b>A</b> 1.		

S

Date:

Tester Name:					Date:	<del></del>			
KXX					XXX				
Site ID:					_	Name:			
AY1135					XXX	x			
RBS Type:						Configuration:			
Huawie DBS	3900				Gyı	000 - S4/4/4			
				IP		<del></del>			/LAN
Abis over IP		+		<u>Р</u>	—			<u>v</u>	LAN
OAM				-					
								-	
VOICE, SMS	S, MMS, SPEE	ED TES	ST			Г		IDOLICH	PUT/SPEED TEST
Cell	MO/MT Voice	Call	SMS		MS	<del></del>		wnload	Upload
Cell 1	MO/WII VOICE	Can	SIVIS	IVII	VIO			Militau	υριυαυ
Cell 2			+			<del>+</del>			+
Cell 3			+			<del>+</del>			+
Cell 3	<del></del>		+						<del></del>
Cell 4 Cell 5	<del></del>		<del> </del>			<del>+</del>			
Cell 5 Cell 6	<del></del>		+			<del></del>			<del></del>
Cell 6									
HANDOVER				<u>-</u> -					
A to B	A to C	$\sum_{i}$	B to A	B to C	2	C to A	С	to B	Remark
CYTEDNIAI	ALARM TEST	÷							
Alm#	ALAKIWI I LO		signation			Туре	Pass	Fail	Remarks
01			Jigi ica.			Closing	1	1	
02						Breaking	+	+ -	
03					$\overline{}$	1	+	+	
04		-			$\neg$		+	+ -	
05					$\neg$		+	+ -	
06		-			$\neg$		+	+ +	
07		-			$\neg$		+	+ +	
08					$\neg$		+	+	
Remarks:									
Accepted by	(Telenor)				Re	sponsible	Engine	er (Erics	son)
Signature:					_	gnature:			

Date:

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#### TEST REPORT RRS - G900

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Project: Site: **Telenor Myanmar** 

AY1135

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

Tester Name:	Date:
XXX	XXX
	Site Name:
AY1135	XXX
RBS Type:	Cell Configuration:
Huawie DBS3900	G900 - S4/4/4

### **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
DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M	ADU451807v01	N/A
DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M	ADU451807v01	NO1520003594
DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M	ADU451807v01	NO1550000089

#### **RBS Cabinet**

Remarks:

Unit	Product number	Serial
DBS3900	2319940	2101072489BNF5000219
RRU3959 sector A	02311BPE	2102311BPE4MG501462
RRU3959 sector B	02311BPE	2102311BPE4MG5001790
RRU3959 sector C	02311BPE	2102311BPE4MG5001781

Accepted by (Telenor)	Responsible Engineer (Ericsson)
Signature:	Signature:
Print Name:	Print Name:
Date:	Date:



#### TEST REPORT RRS - W2100



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Š	ETV/OJA Hung Ngo		2016-08-03	Α	SDD AY1135 A

Project: Site: Telenor Myanmar AY1135

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

<del>-</del>		<b>1</b>
Tester Name: XXX		Date:
Site ID: AY1135		Site Name:
RBS Type: Huawie DBS3900		Cell Configuration: W2100 - S2/2/2
Huawie חספפסט		W2100 - 52/2/2
NE Standalone test	Pass Fail	N/A Remark
Incoming voltage verified	<b>V</b>	
Circuit breaker with correct rating	<b>V</b>	
Cable connection inspected	V	
Cables properly labeled	V	
IDB parameter set	٧	
Fault Status Read	V	
Internal alarm tested	<b>V</b>	
External alarm tested	<b>V</b>	
Antenna system test	٧	
Notes:		
		<u>.</u>
Accepted by (Telenor)		Responsible Engineer (Ericsson)
Signature:		Signature:
Print Name:		Print Name:
Date:		Date:





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EMZ/ Toan Truong		2/153 83-IPA 1	165 5575/ <i>F</i>	AY1135 Uen
Doc respons/Approved	Checked	Date	Rev.	File
ETV/OJA Hung Ngo		2016-08-03	Α	SDD_AY1135_A

e:	AY1135		Record fo	or Site I	nteg	gration				
Tester Name:					Date					
Site ID: AY1135						Name:				
RBS Type: Huawie D	BS3900					Configuration:				
					1					
NODE B						IP				Checked
DAM Link										
RNC Nam	е									
OICE, VI	DEO, SN	IS, MMS, SI	PEED TEST							
	lo :					RMINATING				PUT/SPEED
Sector	Carrier 1	Voice call	Video c	all SMS	i	MMS		Down	load	Upload
Sector 1	2									
Sector 2	1									
	2									<u> </u>
Sector 3	2									
Sector 4	2									
<u> </u>	1									
Sector 5	2									
Sector 6	1 2									
HANDOVE	<u> </u>			<u> </u>		I				<u> </u>
1 to		1 to 3	2 to 1	2 to	3 T	3 to 1	3 1	o 2		Remark
EXTERNA	L ALAR	M TEST								
Alm#			signation			Туре	Pass	Fail		Remarks
01						Closing				
02 03						Breaking				
04										
05										
06										
07										
80										
Remarks:										
ccepted	by (Tele	nor)			Re	sponsible En	ginee	r (Erics	son)	
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#### TEST REPORT RBS - W2100



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Rev	ETV/OJA Hung Ngo		2016-08-03	Α	SDD AY1135 A

Project: Site: Telenor Myanmar AY1135

### **Test Record for Site Integration**

Tester Name:	Date:
xxx	xxx
Site ID: <b>AY1135</b>	Site Name:
	Cell Configuration: <b>W2100 - S2/2/2</b>

#### **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
DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M	ADU451807v01	N/A
DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M	ADU451807v01	NO1520003594
DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M	ADU451807v01	NO1550000089

#### **RBS Cabinet**

Unit	Product number	Serial
DBS3900	2319940	2101072489BNF5000219
RRU3839 sector A	02310TQF	2102310TQFSTG5405843
RRU3839 sector B	02310TQF	2102310TQF8T5405906
RRU3839 sector C	02310TQF	2102310TQF6TG5405883

emarks:	
Accepted by (Telenor)	Responsible Engineer (Ericsson)
o	
Signature: Print Name:	Signature: Print Name:
Date:	Date:



#### PRODUCT LIST

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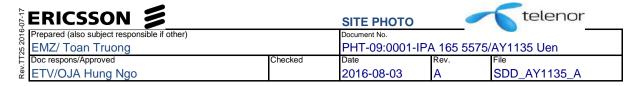
Telenor Myanmar AY1135 Project:

Site:

PRODUCT CODE REV SERIAL No. LINIT MFG.DATE

<u>UNIT</u>	PRODUCT CODE	<u>REV</u>	SERIAL No.	MFG.DATE
DBS3900 GSM900 & WCDMA2100				
BBU	WD2M048BBU01		2102310WYGN00	S501102
FAN	WD2M000FAN02		2102311CHKN0G	5008803
UEIU	WD2M00UEIU00		21023156394MG5	5001942
UPEU	WD2M000PEU03		2102310SFMHVG	5006491
UMPTb1	03054885		210305488510G5	018745
UBBPd6 03	03022HEM		022HEM4MG5037	7099
EMUB	02231GJH		2102310UWTCNF	3008253
RRU3959	02311BPE		2102311BPE4MG	501462
RRU3959	02311BPE		2102311BPE4MG	5001790
RRU3959	02311BPE		2102311BPE4MG	5001781
RRU3839	02310TQF		2102310TQFSTG	5405843
RRU3839	02310TQF		2102310TQF8T54	05906
RRU3839	02310TQF		2102310TQF6TG	5405883
ANTENNA				
DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M	ADU451807v01		N/A	
DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M	ADU451807v01		NO1520003594	
DXX-790-960/1710-2180-65/65-17.5i/18.5i-M/M	ADU451807v01		NO1550000089	)
RET		•		
RCU136,Agisson RET	27150136		N/A	
RCU136,Agisson RET	27150136		N/A	
RCU136,Agisson RET	27150136		HWB6532927051	592T9S
RCU136,Agisson RET	27150136		HWB6480306961	592YFN
RCU136,Agisson RET	27150136		N/A	
RCU136,Agisson RET	27150136		HWB3948920151	453E88
CABINET				
Outdoor Cabinet, TP48200A	JLE4NCUI	1	2101072489BNF5	000210
DCDU1	TD1MDCDU12B0		2102120731N0G3	
DCDU2	TD1MDCDU12B0		2102120731N0G3	
D0D02	TD 1111D CDC 12D0	-	2102120731N0G3	022400

CABINET		
Outdoor Cabinet, TP48200A	JLE4NCUI	2101072489BNF5000219
DCDU1	TD1MDCDU12B0	2102120731N0G3020870
DCDU2	TD1MDCDU12B0	2102120731N0G3022459
DCDU3	TD1MDCDU12B0	2102120731N0G3020873



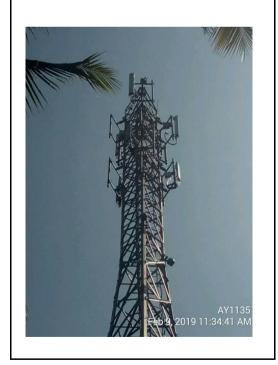
Site: AY1135
Site Location

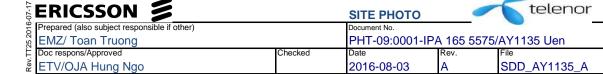


#### Tower View



#### **Top of Tower View**

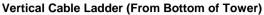




Site: **AY1135** 

**Vertical Cable Ladder (From Top of Tower)** 







Horizontial Cable Ladder



Grouding RRU Power Cable (At Bottom)







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25 20	EMZ/ Toan Truong		PHT-09:0001-IPA	A 165 5575/	/AY1135 Uen
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Telenor Myanmar AY1135 Project:

Site: Antenna Cell A



Antenna Cell B



Antenna Cell C



RCU Cell A







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Telenor Myanmar AY1135

Project: Site:

#### RCU Cell B



### RCU Cell C

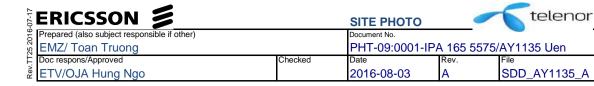


RRU 3936 Cell A



RRU 3936 Cell B

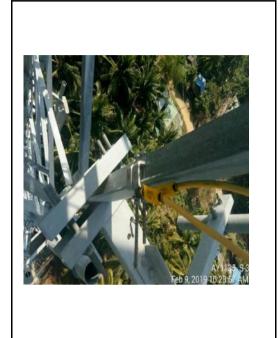




Site: AY1135 RRU 3936 Cell C



#### Earth Bar for RRU 3936







RRU 3826 Cell B







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Checked	Date	Rev.	File
	2016-08-03	Α	SDD_AY1135_A
	Checked	Document No. PHT-09:0001- Checked Date	Document No. PHT-09:0001-IPA 165 55 Checked Date Rev.

Project: **Telenor Myanmar** 

Site: AY1135 RRU 3826 Cell C



#### Earth Bar for RRU 3826



Cabinet (Close)



Cabinet (Open)







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	Doc respons/Approved	Checked	Date	Rev.	File		
è	ETV/O IA Hung Ngo		2016-08-03	Δ	SDD AY1135 A		

Project: **Telenor Myanmar** 

Site: **AY1135** 

#### BBU 3900



#### DCDU



External Alarm Connection (With Clear Label)



#### Cable Inlet Indoor







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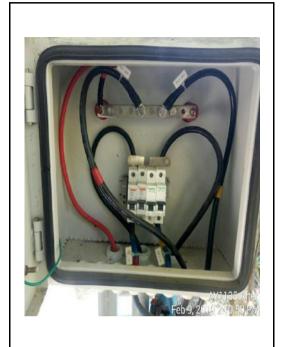
Project: **Telenor Myanmar** 

Site: **AY1135** 

#### **DC Power Cable At Telecom Cabinet**



#### **DC Power Cable At DC Box**



Main Earth Bar In Cabinet



Main Earth Bar For Cabinet









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Site: **AY1135** 

#### NETWORK ELEMENT ACCEPTANCE CERTIFICATE

This is to certify that Ericsson Radio Systems AB has delivered, installed and tested the Network Elements on site AY1135 as defined in PO\_NS\_000020 and PO\_NS\_000021

PO RBS: PO\_NS\_000039

PO HW Cabinet: PO\_NS\_000030 PO Antenna: PO\_NS\_000038

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.

**TEST DOCUMENTS** 

DBS3900 Test Report - G900 DBS3900 Test Report - W2100 **Documents Number** 

1/153 83-IPA 165 5575/AY1135 Uen rev A 2/153 83-IPA 165 5575/AY1135 Uen rev A

For Telonor (The Buyer)	For Ericsson (The Vendor)
Signature:	Signature:
Name:	Name:
Date:	Date: