

TERM OF REFERENCE

PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) [REDACTED]



Divisi Pemasaran & Penjualan
Perusahaan Perseroan (Persero)
PT Industri Telekomunikasi Indonesia
www.inti.co.id

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 2 of 40
Version	1		

Term Of Reference

**PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL
(RADAR SANTANU) DI [REDACTED]**

Dibuat:	[REDACTED]		
Diperiksa:	[REDACTED]		
Disetujui	[REDACTED]		
Disetujui	[REDACTED]		

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 3 of 40
Version	1		

Daftar Isi

1. Ringkasan Eksekutif.....	6
2. Ruang Lingkup.....	6
2.1. Pengadaan Material	6
2.2. Instalasi Perangkat Santanu	20
2.3. Pengiriman Material Santanu.....	20
2.4. Pemenuhan Tanggung jawab Lisensi & Royalti.....	21
3. Spesifikasi Teknis & <i>Bill Of Quantity</i>	21
3.1. Spesifikasi Teknis	22
3.1.1. Outdoor Unit	22
3.1.2. Rack.....	24
3.1.3. Santanu Data Acquisition Board.....	26
3.1.4. Santanu Data Processor.....	29
3.1.5. Power Supply + Signal Conditioning.....	30
3.1.6. UPS [REDACTED] Rack Mounting	31
3.1.7. Sparepart Magnetron.....	32
3.1.8. Tiang Monopole	32
3.1.9. Santanu Installation Material	33

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 4 of 40
Version	1		

3.1.10. PC Workstation	34
3.2. <i>Bill of Quantity (BoQ)</i>	35
4. Timeline Pelaksanaan Pekerjaan	38
5. Lokasi Pekerjaan	38
6. Metode Pengadaan	38
7. Responsibility Matriks	39
8. Penutup	40

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 5 of 40
Version	1		

Daftar Gambar

Gambar 1 Antena + Transceiver Unit FURUNO MODEL 1945	6
Gambar 2 Kelengkapan Furuno 1945	7
Gambar 3 Rack 19" 20U	8
Gambar 4 Santanu Data Acquisition Board.....	9
Gambar 5 Santanu Data Processor.....	9
Gambar 6 Signal Condition.....	10
Gambar 7 Power Supply Unit 12VDC 50A.....	10
Gambar 8 Enclosure	11
Gambar 9 UPS 3Kva 2700 Watt Rackmounting	11
Gambar 10 Sparepart Magnetron.....	14
Gambar 11 Tiang monopole 3 meter	15
Gambar 12 PC Workstation.....	19
Gambar 13 Konfigurasi Radar Hujan SANTANU.....	21
Gambar 14 Antenna Unit & Display Unit.....	22
Gambar 15 Rack 19" 20U	24
Gambar 16 ADC Board	26
Gambar 17 Industrial PC Data Processor.....	29
Gambar 18 Power Supply + SCU	30
Gambar 19 UPS 9SX3000IR 3kva = 2700 watt Rack Mounting	31
Gambar 20 Tiang Monopole	32
Gambar 21 PC Workstation.....	34
Gambar 22 Timeline Pekerjaan.....	38

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 6 of 40
Version	1		

1. Ringkasan Eksekutif

Term Of Reference (TOR) ini dibuat sebagai acuan atau persyaratan terhadap Rekanan/ Mitra/Vendor yang harus dipenuhi berdasarkan kontrak nomor PO. B22151

2. Ruang Lingkup

2.1. Pengadaan Material

Pengadaan material radar hujan Santanu dilakukan untuk pemenuhan instalasi perangkat. Material pengadaan radar hujan Santanu adalah sebagai berikut:

A. Perangkat Furuno 1945

Perangkat Furuno 1945 meliputi antenna, Tranceiver Unit, dan display radar.



Gambar 1 Antena + Transceiver Unit FURUNO MODEL 1945

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 7 of 40
Version	1		



Gambar 2 Kelengkapan Furuno 1945

Kelengkapan Aksesoris

1. Display Unit RDP [REDACTED] (1 Unit)
2. Antena Unit ([REDACTED])
3. Antena Drive Unit [REDACTED]
4. Signal Cable Assy ([REDACTED])
5. Standard Installation Material
6. Standard Spare Parts
7. Operator Manual

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 8 of 40
Version	1		

B. Rack 19" [REDACTED]



Gambar 3 Rack 19" [REDACTED]

- 1) Front Door, steel rear door, 2 side door with lock
- 2) 1 Unit horizontal PDU 8 outlet with switch
- 3) Bracket fan modular with 2 fan
- 4) 1 Pcs fixed shelf, 1 Set adjustable foot of 4
- 5) 1 Pcs top brush panel, 1 Set Castor set of 4
- 6) 1 Set cable ring, 50 Set Cagenut & Screw

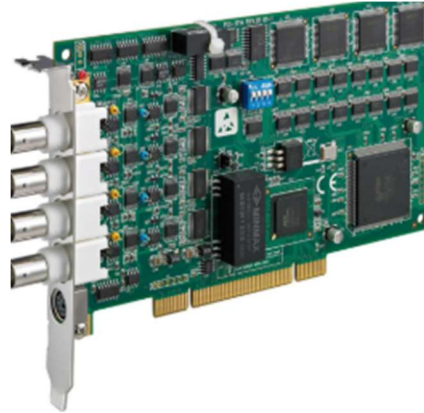
@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 9 of 40
Version	1		

C. Santanu Data Acquisition Board (ADC Advantech [REDACTED])

Santanu Data Acquisition Board menggunakan card [REDACTED] sebagai converter.



Gambar 4 Santanu Data Acquisition Board

D. Santanu Data Processor

Santanu Data Processor berupa server sebgai proses data radar.



Gambar 5 Santanu Data Processor

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 10 of 40
Version	1		

E. Signal Condition



Gambar 6 Signal Condition

F. Power Supply Unit [REDACTED]



Gambar 7 Power Supply Unit 12VDC 50A

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 11 of 40
Version	1		

G. Enclosure

Enclosure untuk system signal condition unit.



Gambar 8 Enclosure

H. UPS [REDACTED] Watt Rackmounting



Gambar 9 UPS [REDACTED] Watt Rackmounting

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 12 of 40
Version	1		

I. Material Pendukung Signal Condition Unit.

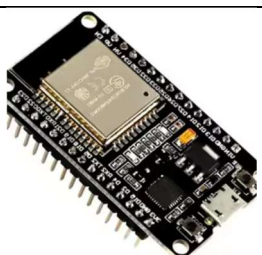
Tabel 1 Material Pendukung SCU

AC Power Connector Male, Chassis Mounted	
Terminal Blok 3 pin Panel Mount	
AC Power Cord	

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 13 of 40
Version	1		

Scun Y	
Kabel [REDACTED] (Black)	
Kabel [REDACTED] (Red)	
ESP32 [REDACTED]	

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
 Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 14 of 40
Version	1		

LED green [REDACTED]	
----------------------	---

J. Spare Part Magnetron



Gambar 10 Sparepart Magnetron

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 15 of 40
Version	1		

K. Tiang Monopole [REDACTED]

Implementasi instalasi radar hujan Santanu diatas gedung dengan tambahan tiang monopole.



Gambar 11 Tiang monopole 3 meter

L. Santanu Installation Material

<i>Cabling Display to SigCon</i>	
Cable [REDACTED]	

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 16 of 40
Version	1		

BNC Connector Crimp Male



Cable Coax [REDACTED]



Heatshrink [REDACTED]



Heatshrink [REDACTED]

Heatshrink [REDACTED]



Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 17 of 40
Version	1		

Heatshrink [REDACTED]



Cabling SigCon to ADC

Cable Coax [REDACTED]



BNC Connector Crimp Male [REDACTED]



Heatshrink [REDACTED]



Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 18 of 40
Version	1		

Connector SMA Male [REDACTED]



Lightning Protection	
APC Surge Protector LAN RJ45	

APC [REDACTED] Surge Protector Filter
Terminal Listrik



Mounting Material	
Santanu Documentation	

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 19 of 40
Version	1		

SANTANU Operation & Maintenance Manual	
SANTANU Installation Manual	
Santanu Labelling	

M. PC Workstation

PC Workstation pada server di PT Bukit Asam untuk prosessing data dari server.



Gambar 12 PC Workstation

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 20 of 40
Version	1		

2.2. Instalasi Perangkat Santanu

Proses Instalasi perangkat Santanu terdiri atas:

A. Pekerjaan Sipil

Pekerjaan sipil meliputi pembangunan pondasi pada lokasi pemasangan radar hujan Santanu serta pemasangan tiang 3 meter 2 segment.

B. Instalasi Perangkat Outdoor

Instalasi perangkat outdoor meliputi pemasangan Antenna Unit ke tiang dan penarikan kabel ke lokasi perangkat indoor

C. Instalasi Perangkat Indoor

Instalasi perangkat indoor meliputi perakitan SigCon+Power, instalasi UPS, server dan display unit. Perangkat Indoor berada dalam 1 Rack [REDACTED] 19".

D. Instalasi Software

Instalasi software untuk pembacaan Antenna Radar.

E. Integrasi Perangkat Santanu ke PC Workstation.

Integrasi Perangkat Santanu ke PC Workstation meliputi integrasi perangkat Santanu ke PC Worktation.

2.3. Pengiriman Material Santanu

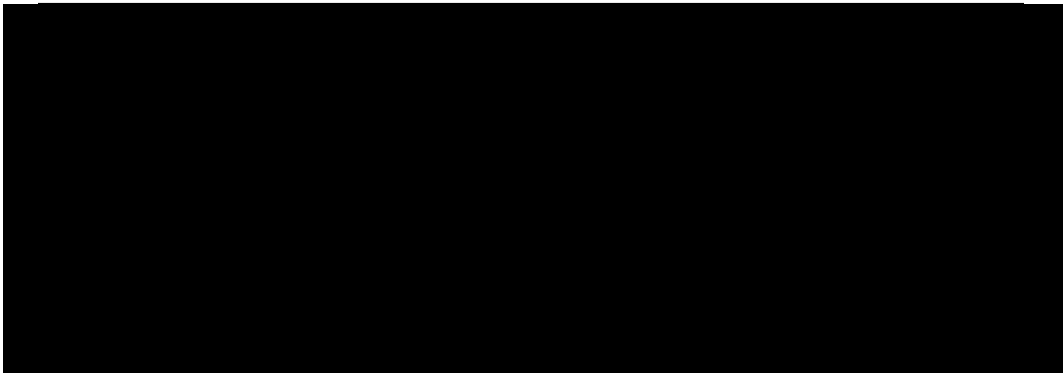
Pengiriman material dilakukan dari PT INTI ke lokasi [REDACTED]

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 21 of 40
Version	1		

2.4. Pemenuhan Tanggung jawab Lisensi & Royalti

PT INTI melakukan pemenuhan tanggung jawab lisensi & royalty kepada Badan Riset & Inovasi Nasional (BRIN) sesuai kesepakatan yang tertuang dalam Perjanjian lisensi antara Badan Riset & Inovasi Nasional (BRIN) & PT INTI tentang Sistem Pemantau Hujan

3. Spesifikasi Teknis & *Bill Of Quantity*



Gambar 13 Konfigurasi Radar Hujan SANTANU

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 22 of 40
Version	1		

3.1. Spesifikasi Teknis

3.1.1.Outdoor Unit



Gambar 14 Antenna Unit & Display Unit

Spesifikasi Teknis:

No.	Parameter	Spesifikasi
General		
1.	Type Antenna	[REDACTED]
2.	Length & Rotation Speed	[REDACTED]
3.	Beamwidth	[REDACTED]
RF Transceiver		
4.	Frequency	[REDACTED]
5.	Output Power	[REDACTED]

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 23 of 40
Version	1		

Display			
6.	Screen Size	██████████	
7.	Pixel Number	████████████████	
8.	Effective Diameter	██████	
9.	Display Modes	██	

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 24 of 40
Version	1		

	Display Unit [REDACTED]		
	Signal Cable Assy [REDACTED]		
	Standard Installation Material		
	Standard Spare Parts		
	Operator Manual		

3.1.2.Rack



Gambar 15 Rack 19" [REDACTED]

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
 Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 25 of 40
Version	1		

No.	Parameter	Spesifikasi
1	Product Type	[REDACTED]
2	Size	[REDACTED]
3	Dimension (DxWxH	[REDACTED]
4	Complete Set with	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 26 of 40
Version	1		

3.1.3.Santanu Data Acquisition Board



Gambar 16 ADC Board

Spesifikasi:

No.	Parameter	Spesifikasi
Analog Input		
1	Channels	[REDACTED]
2	Analog-to-digital converter (ADC) resolution	[REDACTED]
3	Input range	[REDACTED]
4	Maximum input voltage	[REDACTED]
5	Over-voltage protection	[REDACTED]
6	Input coupling	[REDACTED]
7	Input impedance	[REDACTED]

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 27 of 40
Version	1		

8	Analog low-pass filter	[REDACTED]
9	Acquisition type	[REDACTED]
10	Buffered Acquisition	
11	Enabled channel combination	[REDACTED] [REDACTED]
12	Sample rate	[REDACTED]
13	On-board FIFO Size	[REDACTED]
Absolute accuracy		
14	Operating temperature	[REDACTED] [REDACTED] [REDACTED]
Trigger		
15	Number of triggers	[REDACTED]
16	Trigger action	[REDACTED]
17	Trigger delay range	[REDACTED]
18	Sample number	[REDACTED]
Analog Trigger		
19	Source	[REDACTED] [REDACTED]
20	Threshold level	[REDACTED] [REDACTED]

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 28 of 40
Version	1		

21	Hysteresis	[REDACTED]
		[REDACTED]
22	Polarity	[REDACTED]
		[REDACTED]
Digital Trigger		
23	Source	[REDACTED]
24	Input logic level	[REDACTED]
		[REDACTED]
25	Working voltage	[REDACTED]
26	Polarity	[REDACTED]
		[REDACTED]
27	Input protection voltage	[REDACTED]
Mechanical		
28	Connector Type	[REDACTED]
29	Dimension	[REDACTED]
30	Weight	[REDACTED]
31	Bus	[REDACTED]
Environment		
32	Operating Tempereure	[REDACTED]
33	Storage temperature	[REDACTED]
34	Operating humidity	[REDACTED]
35	Storage humidity	[REDACTED]

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 29 of 40
Version	1		

Certification		
36	EMC	[REDACTED]

3.1.4.Santanu Data Processor



Gambar 17 Industrial PC Data Processor

Spesifikasi:

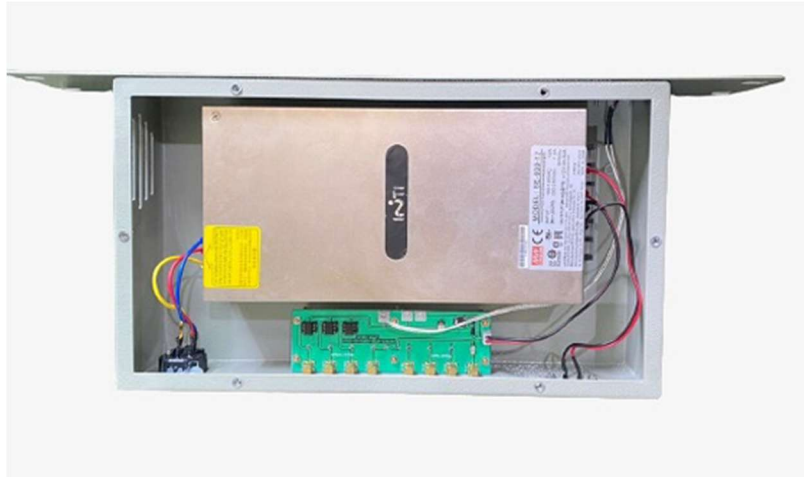
No	Parameter	Spesifikasi
1	Processor	[REDACTED] [REDACTED] [REDACTED]
2	Memory	[REDACTED]
3	Expansion Slots	[REDACTED] [REDACTED]
4	Warranty	[REDACTED]
	Support OS	[REDACTED] [REDACTED]

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 30 of 40
Version	1		

3.1.5. Power Supply + Signal Conditioning



Gambar 18 Power Supply + SCU

No	Spesifikasi
1	Lapan SigCon
2	Power Supply Unit [REDACTED]
3	AC Power Connector Male, Chassis Mounted
4	Terminal Blok [REDACTED] Panel Mount
5	AC Power Cord
6	Scun Y
7	Kabel [REDACTED] (Black) [REDACTED] (Black)
8	Kabel [REDACTED] (Red) [REDACTED] (Red)
9	Enclosure Sigcon Santanu
10	[REDACTED]

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 31 of 40
Version	1		

11	LED green [REDACTED]
12	Kabel Harness PCBA to LED

3.1.6. UPS 9SX3000IR 3kva = 2700 watt Rack Mounting



Gambar 19 UPS [REDACTED] Rack Mounting

No	Parameter	Spesifikasi
1	Rating (VA/W)	[REDACTED]
2	Format	[REDACTED]
Electrical Characteristic		
3	Technology	[REDACTED]
4	Nominal voltage	[REDACTED]
5	Input voltage range	[REDACTED]
Communication		
6	Communication Port	[REDACTED]

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 32 of 40
Version	1		

7	Communication Slot	[REDACTED]
---	--------------------	------------

3.1.7.Sparepart Magnetron

Spesifikasi:

No	Deskripsi
1	Spare Part Magnetron [REDACTED]

3.1.8.Tiang Monopole



Gambar 20 Tiang Monopole

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 33 of 40
Version	1		

No	Parameter	Spesifikasi
1	Tinggi	[REDACTED]
2	Diameter Dalam	[REDACTED] [REDACTED]
3	Diamter Luar	[REDACTED]
4	Tebal	[REDACTED]
5	Bahan	[REDACTED]

3.1.9.Santanu Installation Material

No	Spesifikasi
1	[REDACTED]
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 34 of 40
Version	1		

19	[REDACTED]
20	
21	

3.1.10. PC Workstation



Gambar 21 PC Workstation

Spesifikasi:

No	Parameter	Spesifikasi
1	Processor	[REDACTED]
2	Memory	[REDACTED]
3	Storage	[REDACTED]

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 35 of 40
Version	1		

		[REDACTED]
4	Network	[REDACTED]
		[REDACTED]
5	OS	[REDACTED] 11
6	Include	[REDACTED]
		[REDACTED]
		[REDACTED]
		[REDACTED]
7	Warranty	[REDACTED]

3.2. Bill of Quantity (BoQ)

No	Deskripsi	Qty
1	Outdoor Unit	
1.1	[REDACTED]	1
1.1.1	[REDACTED]	1
1.1.2	[REDACTED]	1
1.1.3	[REDACTED]	1
1.1.4	[REDACTED]	1
1.1.5	[REDACTED]	1
1.1.6	[REDACTED]	1
2	Indoor Rack	
2.1	[REDACTED]	1
2.2	[REDACTED]	1
2.3	[REDACTED]	
2.3.1	[REDACTED]	1
2.3.2	[REDACTED]	1

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 36 of 40
Version	1		

2.3.4	[REDACTED]	1
2.3.5	[REDACTED]	1
2.4	[REDACTED]	
2.4.1	[REDACTED]	1
2.4.2	[REDACTED]	1
2.4.3	[REDACTED]	1
2.4.4	[REDACTED]	1
2.4.5	[REDACTED]	1
2.4.6	[REDACTED]	1
2.4.7	[REDACTED]	1
2.4.8	[REDACTED]	1
2.4.9	[REDACTED]	1
2.4.10	[REDACTED]	1
2.4.11	[REDACTED]	3
2.4.12	[REDACTED]	8
2.5	[REDACTED]	1
3	Optional Item, tergantung kondisi site	
3.1	[REDACTED]	2
	[REDACTED]	
3.2	[REDACTED]	1
3.3	[REDACTED]	1
4	Santanu Installation Material	1
4.1	[REDACTED]	1
4.1.1	[REDACTED]	1
4.1.2	[REDACTED]	4
4.1.3	[REDACTED]	2
4.1.4	[REDACTED]	1
4.1.5	[REDACTED]	1
4.1.6	[REDACTED]	1
4.1.7	[REDACTED]	1
4.2	[REDACTED]	1
4.2.1	[REDACTED]	2

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 37 of 40
Version	1		

4.2.3	[REDACTED]	4
4.2.5	[REDACTED]	1
4.2.6	[REDACTED]	4
4.3	[REDACTED]	1
4.3.1	[REDACTED]	1
4.3.2	[REDACTED]	1
4.4	[REDACTED]	1
4.5	[REDACTED]	
4.5.1	[REDACTED]	1
4.5.2	[REDACTED]	1
4.6	[REDACTED]	1
5	PC Desktop	
5.1	[REDACTED]	1
5.2	[REDACTED]	1
5.3	[REDACTED]	1
5.4	[REDACTED]	1
5.5	[REDACTED]	1

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 38 of 40
Version	1		

4. Timeline Pelaksanaan Pekerjaan

Timeline pelaksanaan pekerjaan adalah sebagai berikut:

No	Task List	Mei				Juni				Juli				Agustus				September			
		WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4	WK1	WK2	WK3	WK4
1	Rilis PO																				
2	Desain Engineering																				
	Survey Lapangan																				
	Dokumen Hasil Survey																				
3	Pengadaan Material																				
4	Produksi																				
5	Packing & Delivery																				
6	Site Preparation																				
7	Instalasi																				
8	Testing & Commissioning																				
9	Site Acceptance Test																				

Gambar 22 Timeline Pekerjaan

5. Lokasi Pekerjaan

Lokasi Pekerjaan berada di PT INTI dan kawasan [REDACTED]

6. Metode Pengadaan

Metode pengadaan dilakukan sesuai pedoman pengadaan barang dan jasa yang berlaku di PT INTI.

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 39 of 40
Version	1		

7. Responsibility Matriks

No.	Deskripsi	PT INTI	PTBA
1	[REDACTED]	S	R
2		S	R
3		S	R
4		S	R
5		S	R
6		R	S
7		R	S
8		R	S
9		R	S
10		R	S
11		R	S
12		R	S
13		R	S
14		R	R

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA

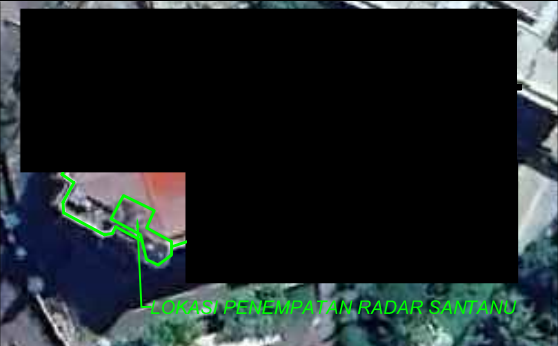
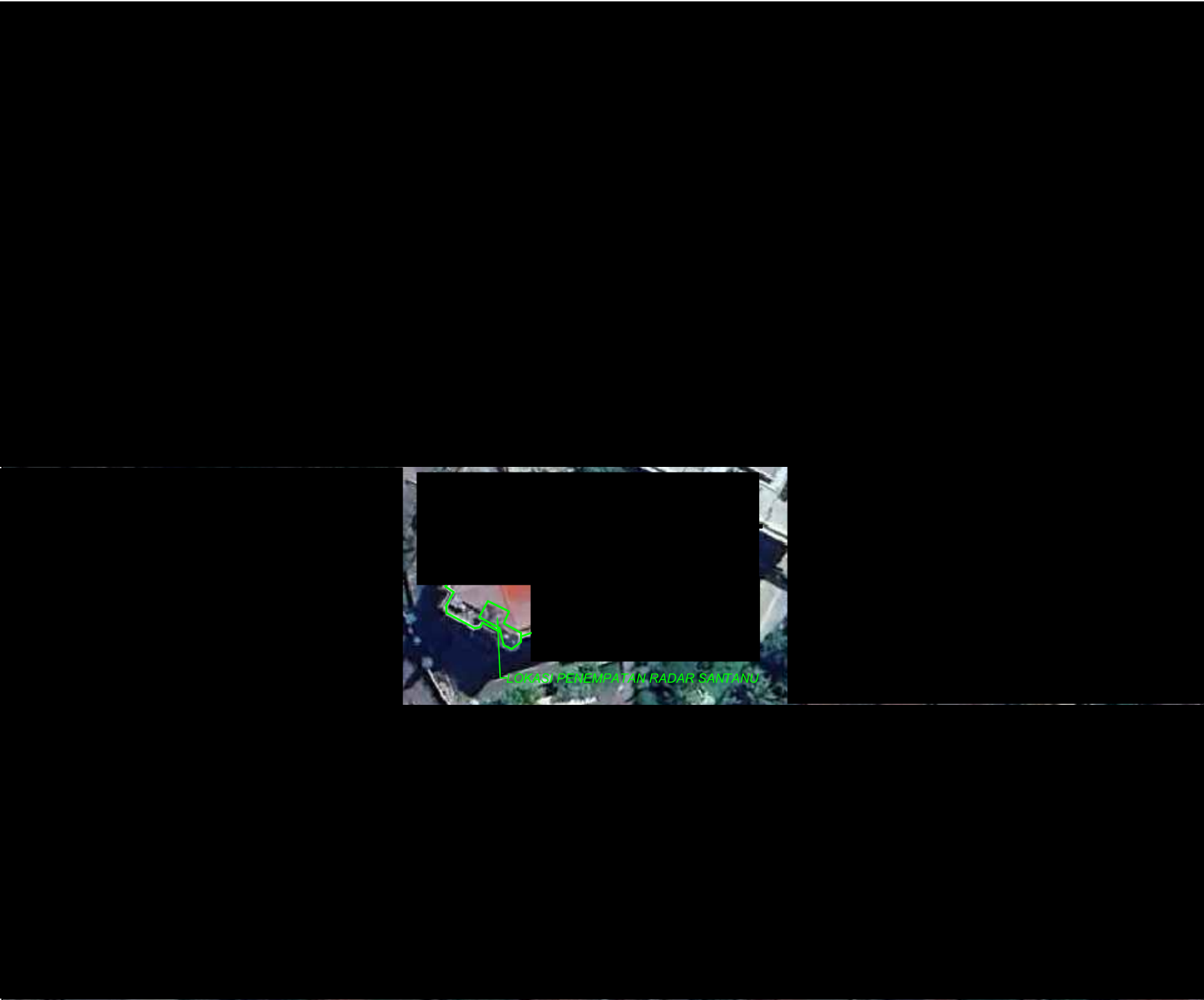
Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law

Term of Reference			
Document Name	PEKERJAAN INSTALASI RADAR SYSTEM PEMANTAUAN HUJAN SPATIAL (RADAR SANTANU) DI [REDACTED]		
Modification		Creation	22 juli 2026
Written by	Perusahaan Perseroan (Persero) PT Industri Telekomunikasi Indonesia	Pages	Page 40 of 40
Version	1		

8. Penutup

| Apabila di dalam TOR ini masih terdapat kekurangan, maka akan dilengkapi di dalam RKS atau Kontrak Perjanjian.

@2026, PERUSAHAAN PERSEROAN (PERSERO) PT INDUSTRI TELEKOMUNIKASI INDONESIA
 Due to intelligent proprietary right, no copying, reproduction or editing is allowed in part or all of this document's content by using any means of electronic or manual devices, such action may result in severe and criminal penalties, and will be prosecuted to the maximum extent possible under the Republic of Indonesia law



REMARK :

-UNIT : MM

ACKNOWLEDGE BY



CONTRACTOR



No	DATE	REVISION	SIGN

PROJECT NAME

RADAR SANTANU

DRAWING TITLE

LOKASI RADAR SANTANU

SITE ID	LOCATION
-	-

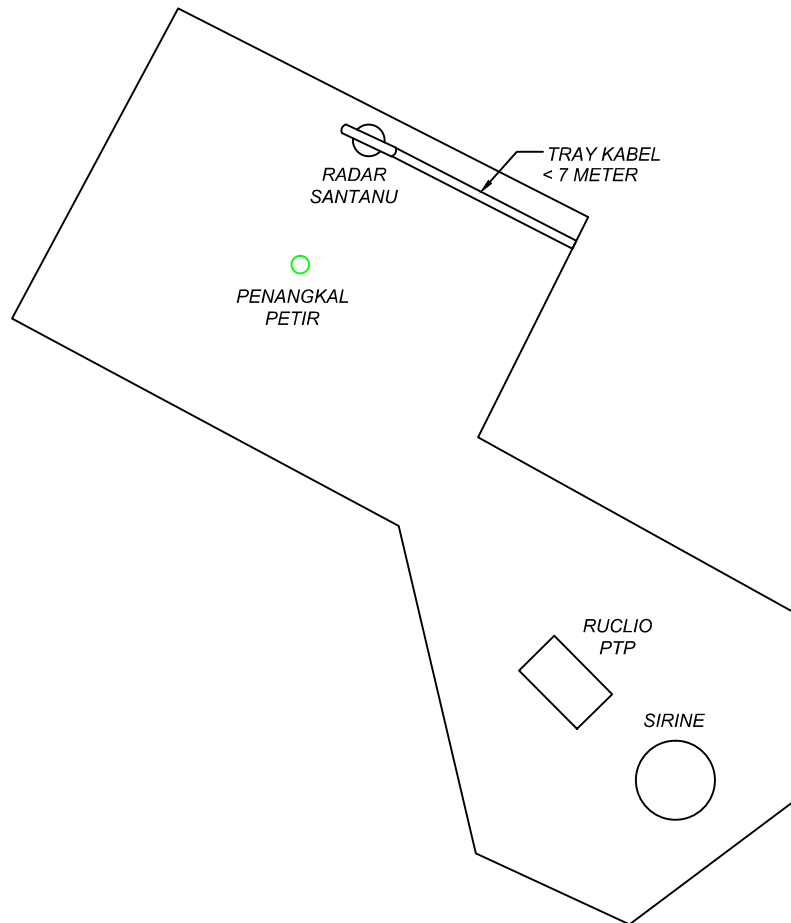
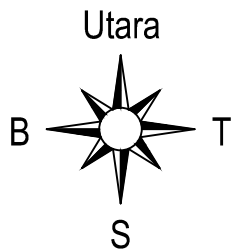
ASPLAN DRAWING

SCALE	NTS	SIGN	DATE
DRAWING BY			
CHECKED BY			
APPROVED BY			

DRAWING NO

-

SHEET NO	TOTAL SHEET
-	-



 **LAYOUT OUTDOOR**
RADAR SANTANU

REMARK :

-UNIT : MM

ACKNOWLEDGE BY

CONTRACTOR

 PT. INDUSTRI TELEKOMUNIKASI INDONESIA

No	DATE	REVISION	SIGN

PROJECT NAME

RADAR SANTANU

DRAWING TITLE

LAYOUR OUTDOOR
RADAR SANTANU

SITE ID	LOCATION
-	-

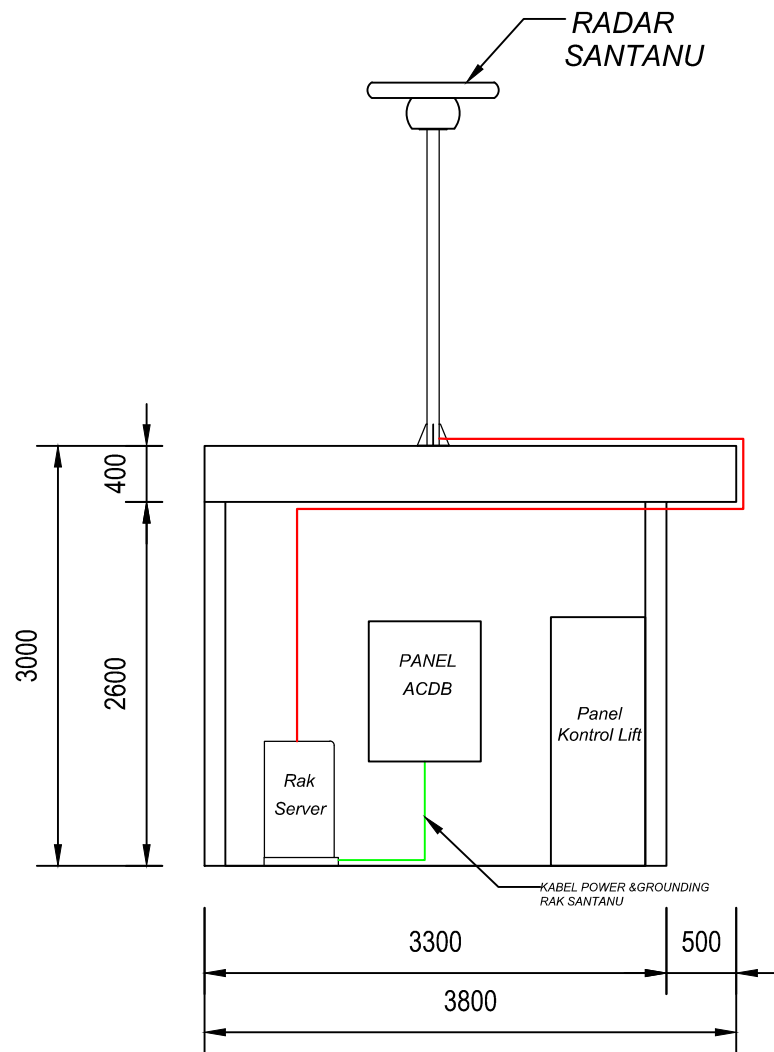
ASPLAN DRAWING

SCALE	NTS	SIGN	DATE
DRAWING BY			
CHECKED BY			
APPROVED BY			

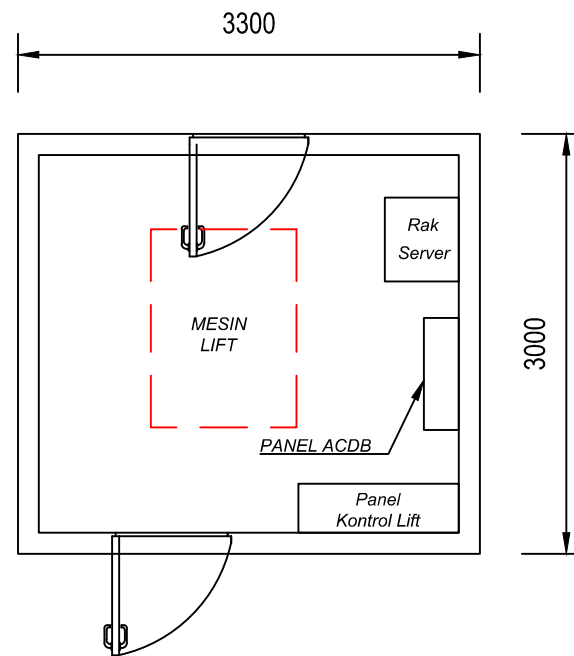
DRAWING NO

-

SHEET NO	TOTAL SHEET
-	-



TAMPAK SAMPING



TAMPAK ATAS



LAYOUT INDOOR
RADAR SANTANU

REMARK :

-UNIT : MM

ACKNOWLEDGE BY

CONTRACTOR

PT. INDUSTRI TELEKOMUNIKASI INDONESIA

No	DATE	REVISION	SIGN

PROJECT NAME

RADAR SANTANU

DRAWING TITLE

LAYOUT INDOOR
RADAR SANTANU

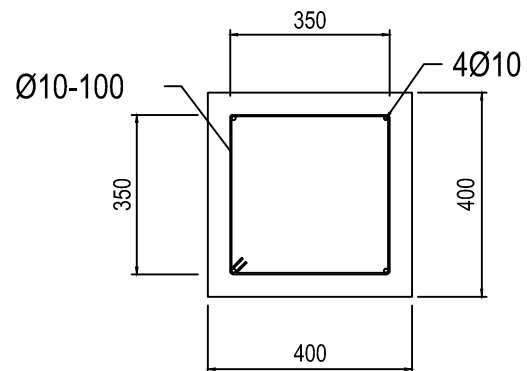
SITE ID	LOCATION
-	-

ASPLAN DRAWING

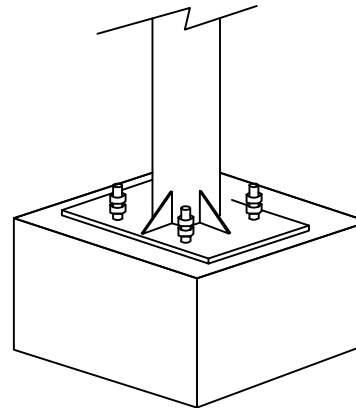
SCALE	NTS	SIGN	DATE
DRAWING BY			
CHECKED BY			
APPROVED BY			

DRAWING NO

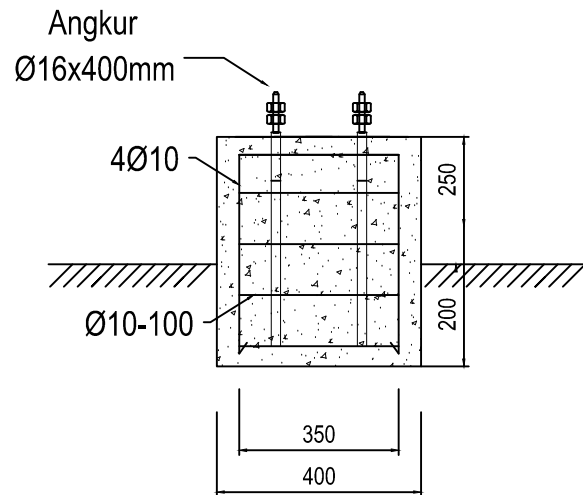
SHEET NO	TOTAL SHEET
-	-



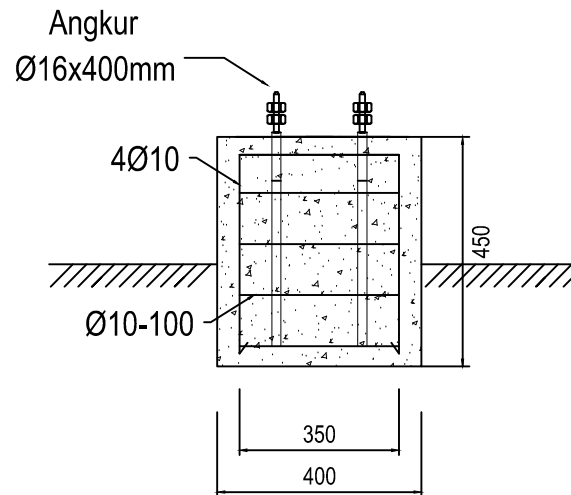
Tampak Atas



Isometri



Tampak Depan



Tampak Samping

PONDASI
PENYANGGA TIANG

REMARK :

-UNIT : MM

ACKNOWLEDGE BY

CONTRACTOR

PT. INDUSTRI TELEKOMUNIKASI INDONESIA

No	DATE	REVISION	SIGN

PROJECT NAME

DRAWING TITLE

PONDASI
TIANG SANTANU

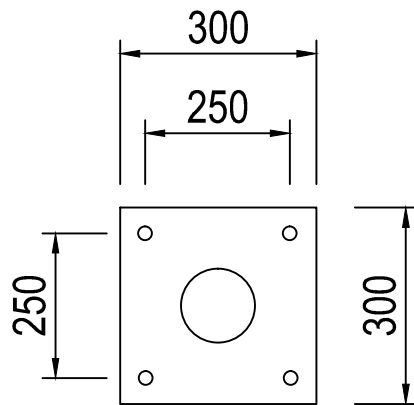
SITE ID	LOCATION

ASPLAN DRAWING

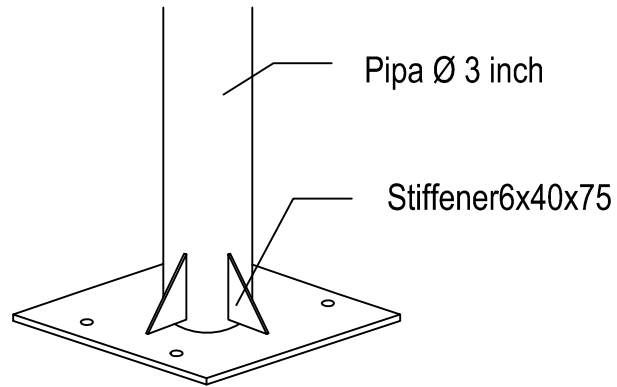
SCALE	NTS	SIGN	DATE
DRAWING BY			
CHECKED BY			
APPROVED BY			

DRAWING NO

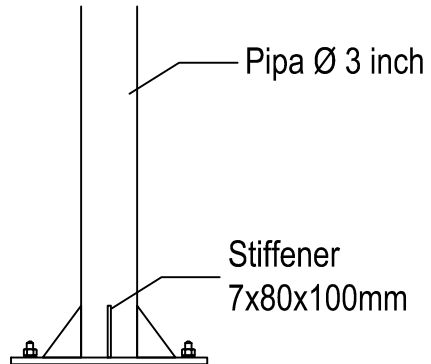
SHEET NO	TOTAL SHEET



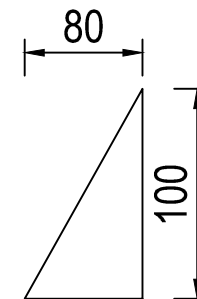
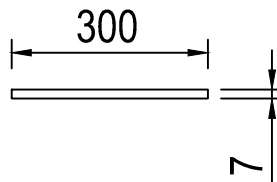
Tampak Atas



Isometri



Tampak Depan



Stiffener



REMARK :

-UNIT : MM

ACKNOWLEDGE BY

CONTRACTOR



PT. INDUSTRI TELEKOMUNIKASI INDONESIA

No	DATE	REVISION	SIGN

PROJECT NAME

DRAWING TITLE

BASE PLATE
TIANG SANTANU

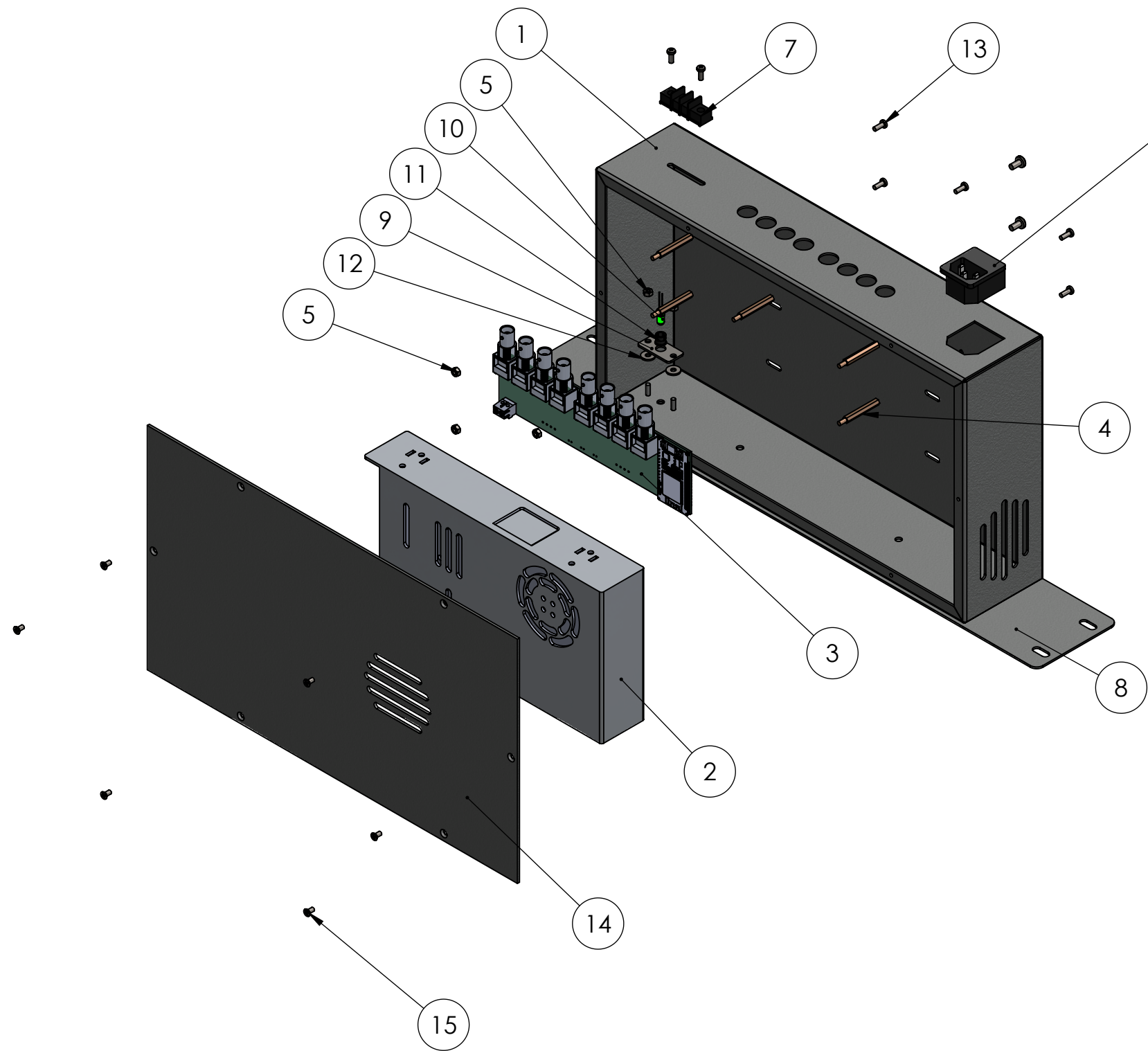
SITE ID	LOCATION

ASPLAN DRAWING

SCALE	NTS	SIGN	DATE
DRAWING BY	ASEP. S		
CHECKED BY	ERIS O.		
APPROVED BY	LUTHFY D.		

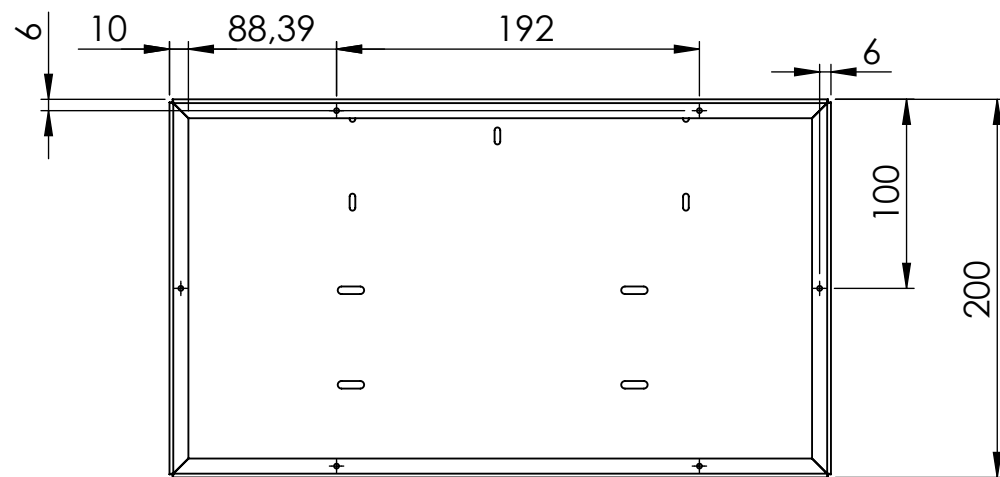
DRAWING NO

SHEET NO	TOTAL SHEET
-	-

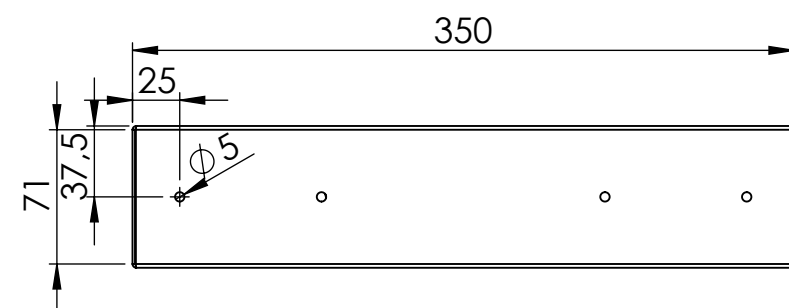


ITEM NO.	PART NAME	DESCRIPTION	QTY.
1			1
2			1
3			1
4			5
5			5
6			1
7			1
8			1
9			1
10			1
11			1
12			2
13			9
14			1
15			6

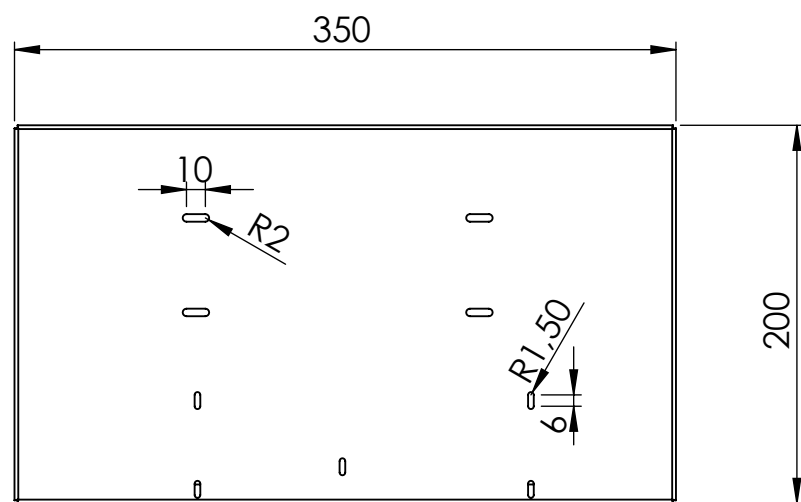
	NAMA	TANGGAL	PARAF	NAMA:		PROYEKSI:	
DIGAMBAR				ASSEMBLY CHART BOX SIGNAL CONDITION SANTANU			
DIPERIKSA							
DISETUJUI							
DISAHKAN							
 DIVISI PENJUALAN & PEMASARAN PT. INDUSTRI TELEKOMUNIKASI INDONESIA (PERSERO) JL. MOCH. TOHA NO.77, BANDUNG 40253				BAHAN:	NO. GAMBAR:	REVISI:	FORMAT
				-	-		A3
				BERAT: -	SKALA: 1:3.5		



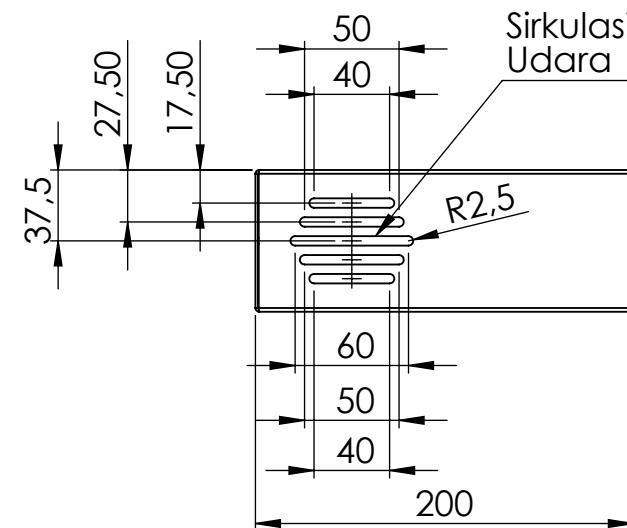
TAMPAK ATAS



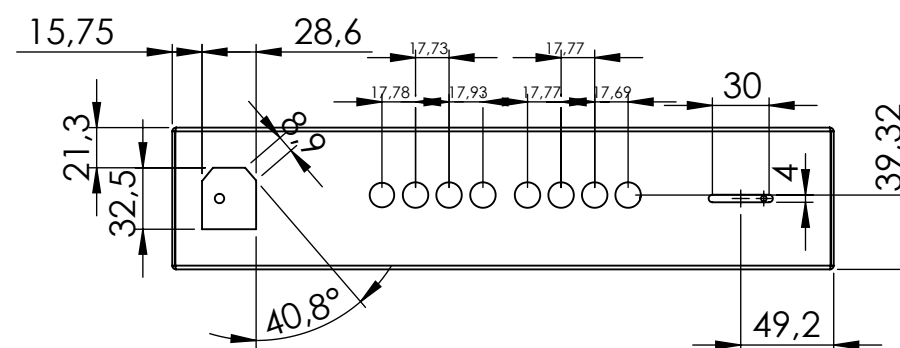
TAMPAK DEPAN



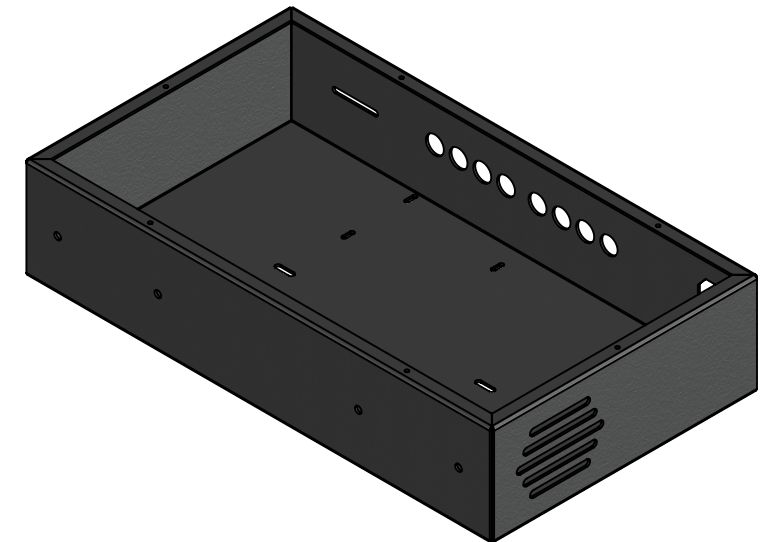
TAMPAK BAWAH



TAMPAK SAMPING KIRI

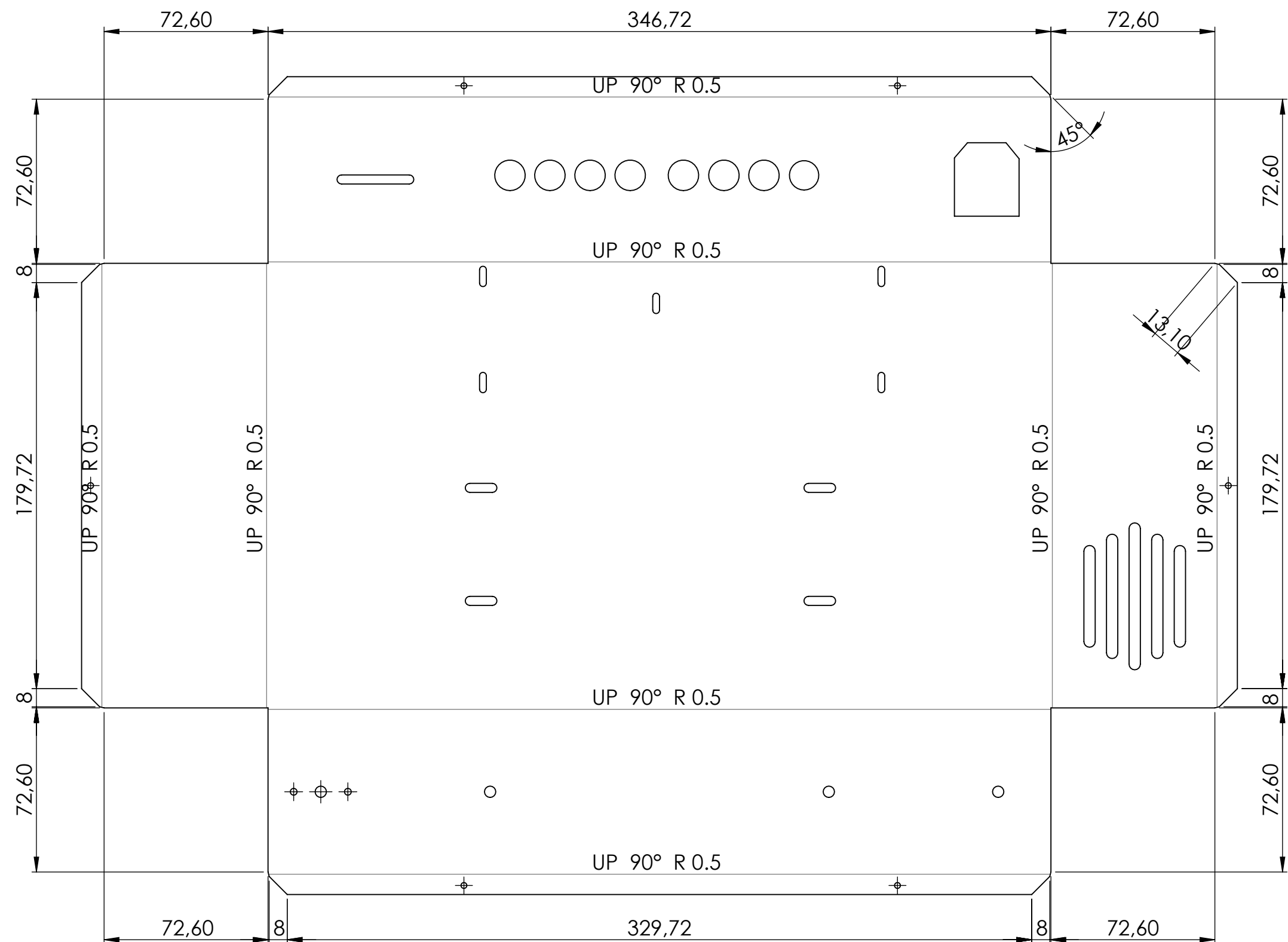


TAMPAK BELAKANG

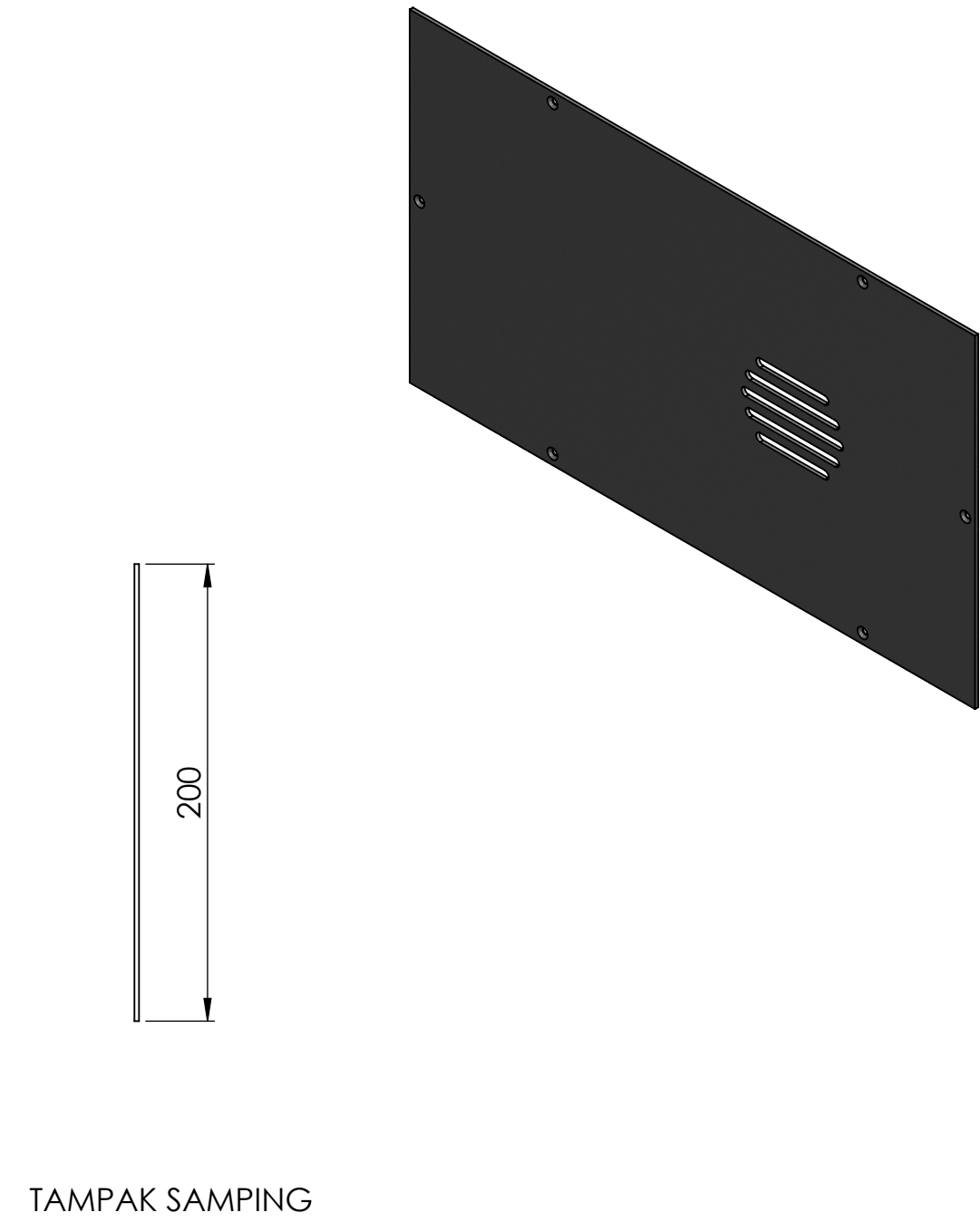
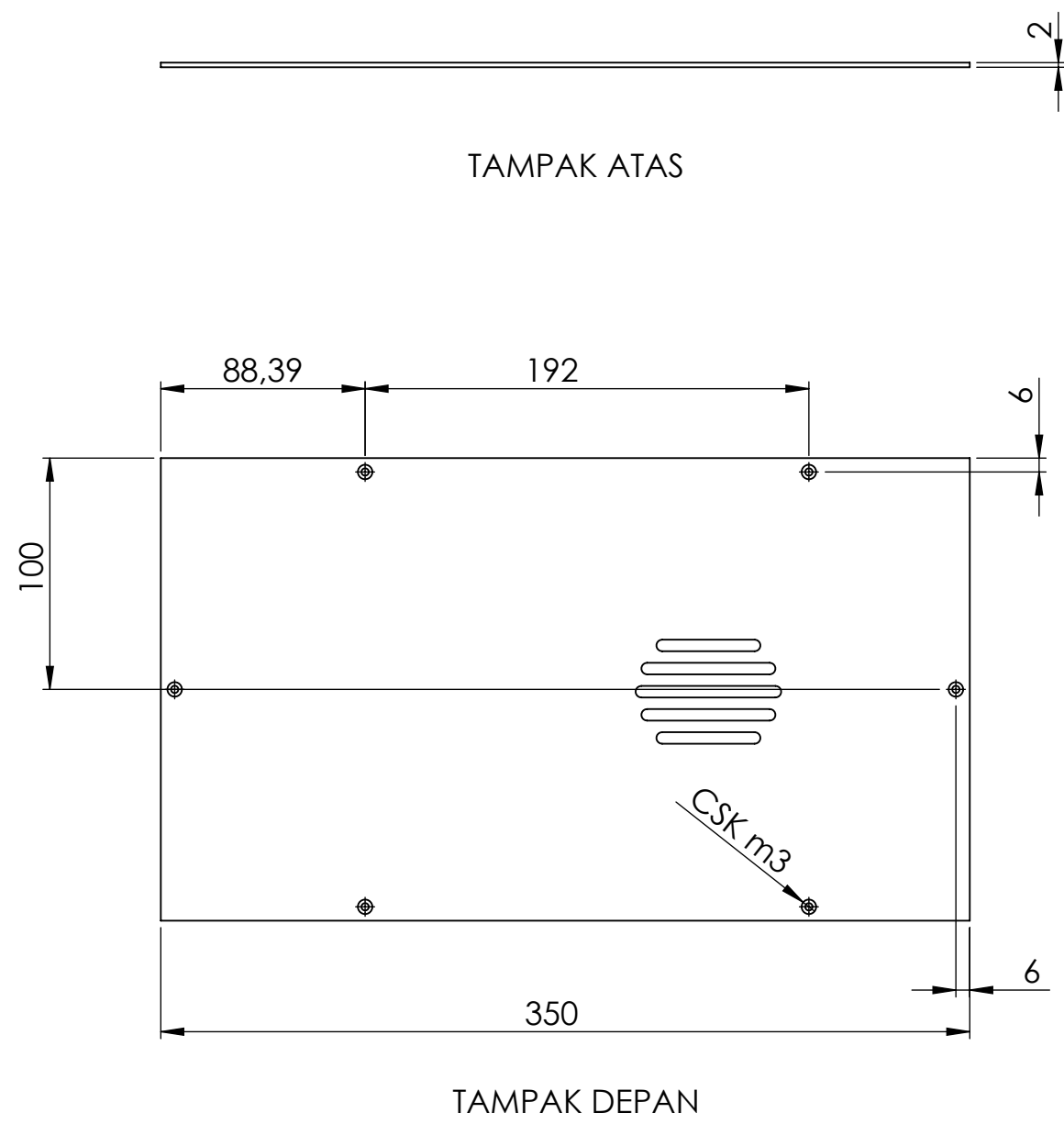


TAMPAK ISOMETRI

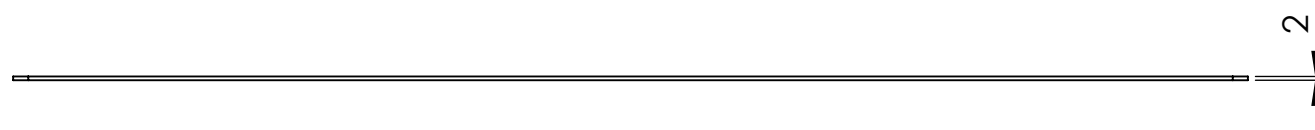
	NAMA	TANGGAL	PARAF	NAMA:		PROYEKSI:	
DIGAMBAR				BASE BOX SIGNAL CONDITION SANTANU			
DIPERIKSA							
DISETUJUI							
DISAHKAN							
				BAHAN:		NO. GAMBAR:	REVISI:
				BESI PLAT 1.5 MM		-	FORMAT
DIVISI PEJUALAN & PEMASARAN PT. INDUSTRI TELEKOMUNIKASI INDONESIA (PERSERO) JL. MOCH. TOHA NO.77, BANDUNG 40253				BERAT: -		SKALA: 1:4	



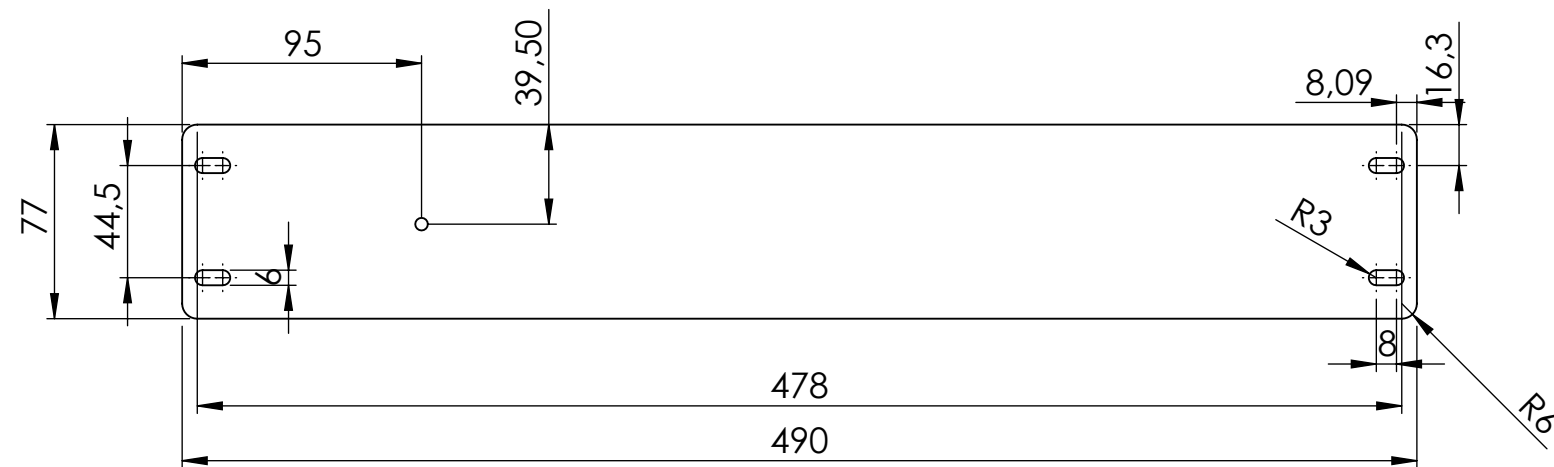
	NAMA	TANGGAL	PARAF	NAMA:		PROYEKSI:	
DIGAMBAR				FLAT PATERRN BASE BOX SIGNAL CONDITION SANTANU			
DIPERIKSA							
DISETUJUI							
DISAHKAN							
 DIVISI PENJUALAN & PEMASARAN PT. INDUSTRI TELEKOMUNIKASI INDONESIA (PERSERO) JL. MOCH. TOHA NO.77, BANDUNG 40253				BAHAN:	NO. GAMBAR:	REVISI:	FORMAT
				Plat 1.5 mm	-		A3
				BERAT: -	SKALA: 1:2		



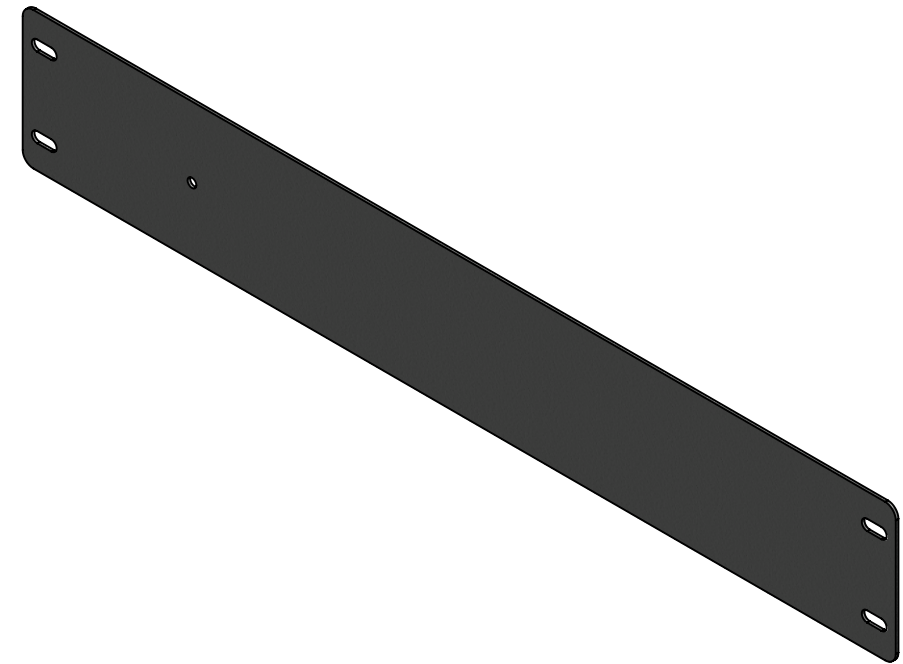
	NAMA	TANGGAL	PARAF	NAMA:		PROYEKSI:	
DIGAMBAR				TUTUP BOX SIGNAL CONDITION SANTANU			
DIPERIKSA							
DISETUJUI							
DISAHKAN							
				BAHAN:		NO. GAMBAR:	FORMAT
				Besi Plat tebal 2 mm		-	A3
DIVISI PENJUALAN & PEMASARAN PT. INDUSTRI TELEKOMUNIKASI INDONESIA (PERSERO) JL. MOCH. TOHA NO.77, BANDUNG 40253				BERAT: -		SKALA: 1:3	



TAMPAK ATAS

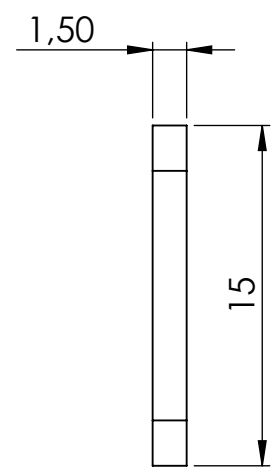
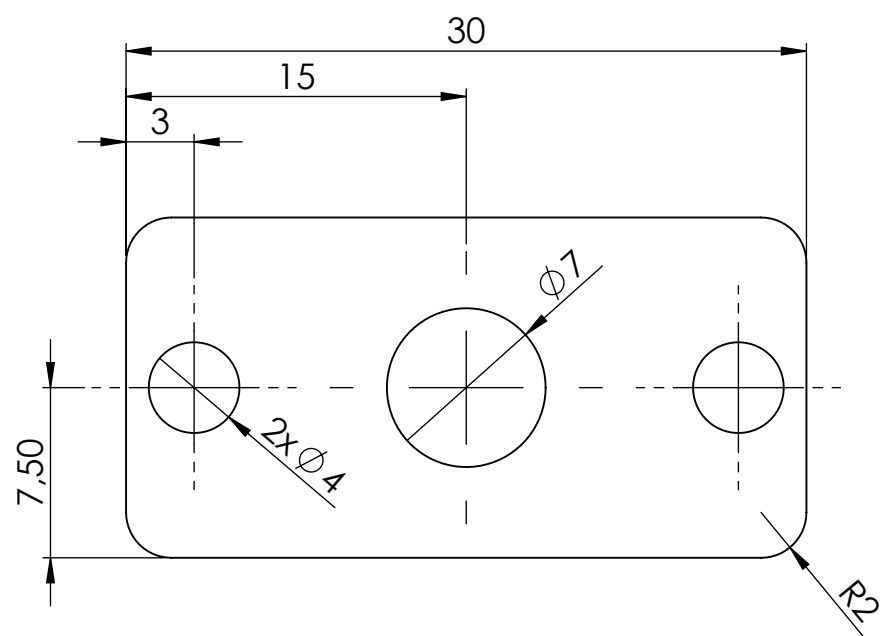
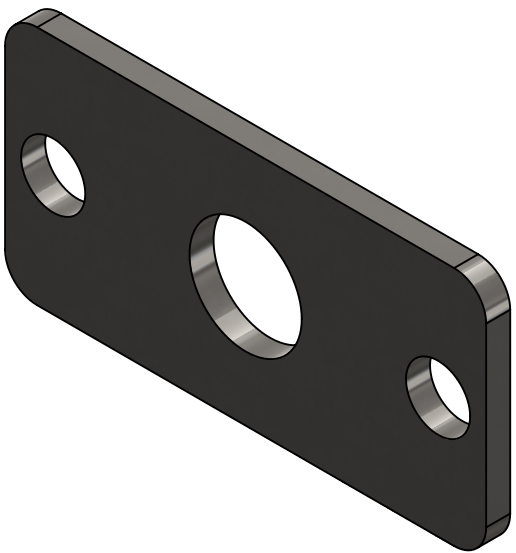


TAMPAK DEPAN

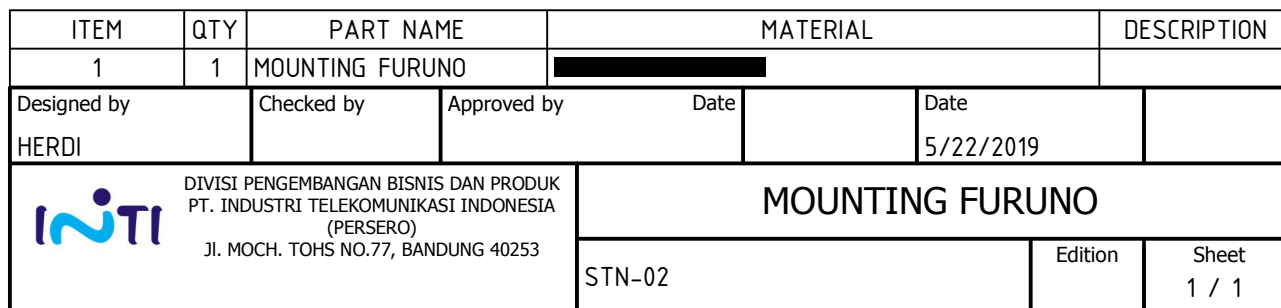


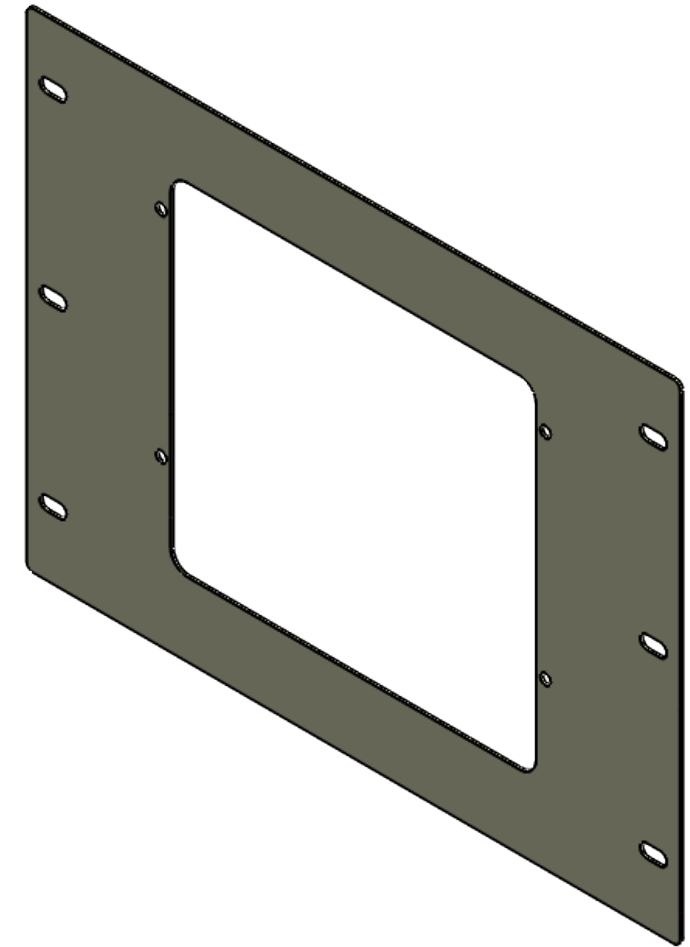
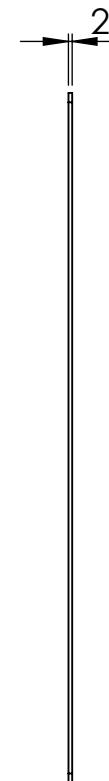
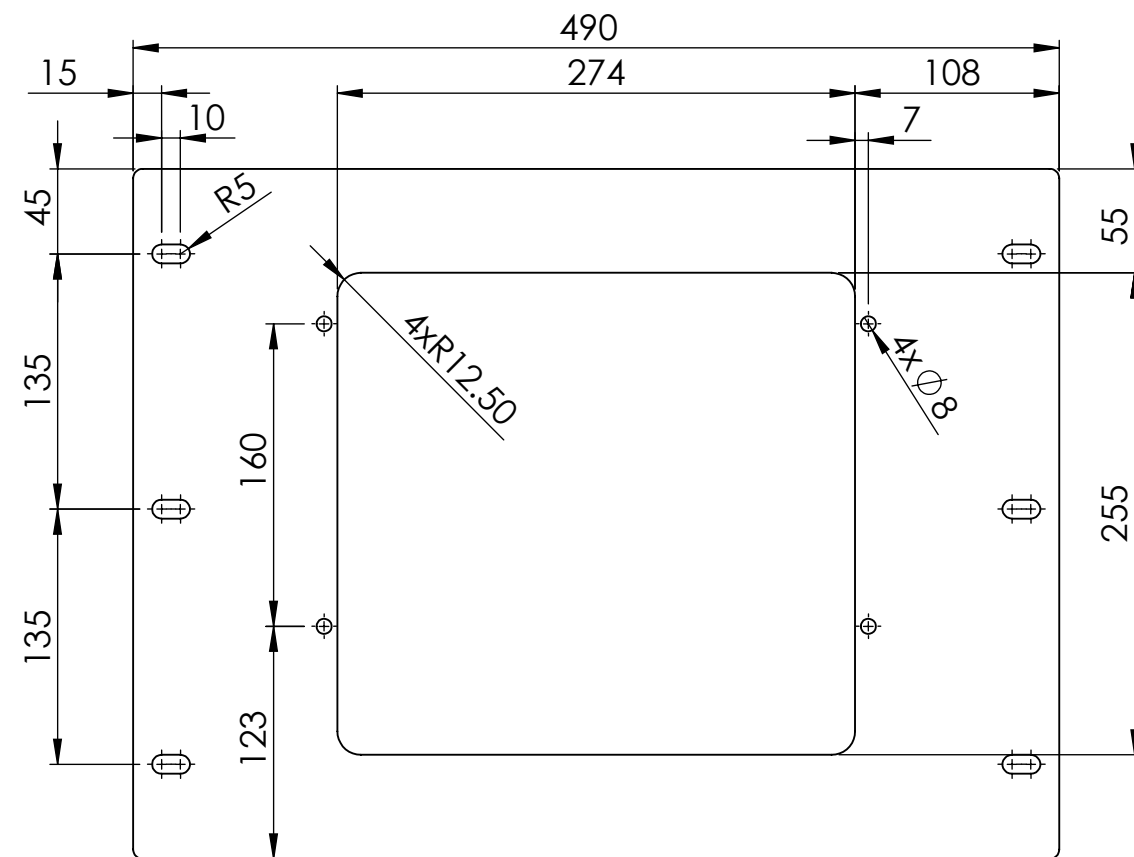
TAMPAK SAMPING

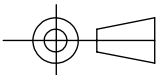
	NAMA	TANGGAL	PARAF	NAMA:
--	------	---------	-------	---

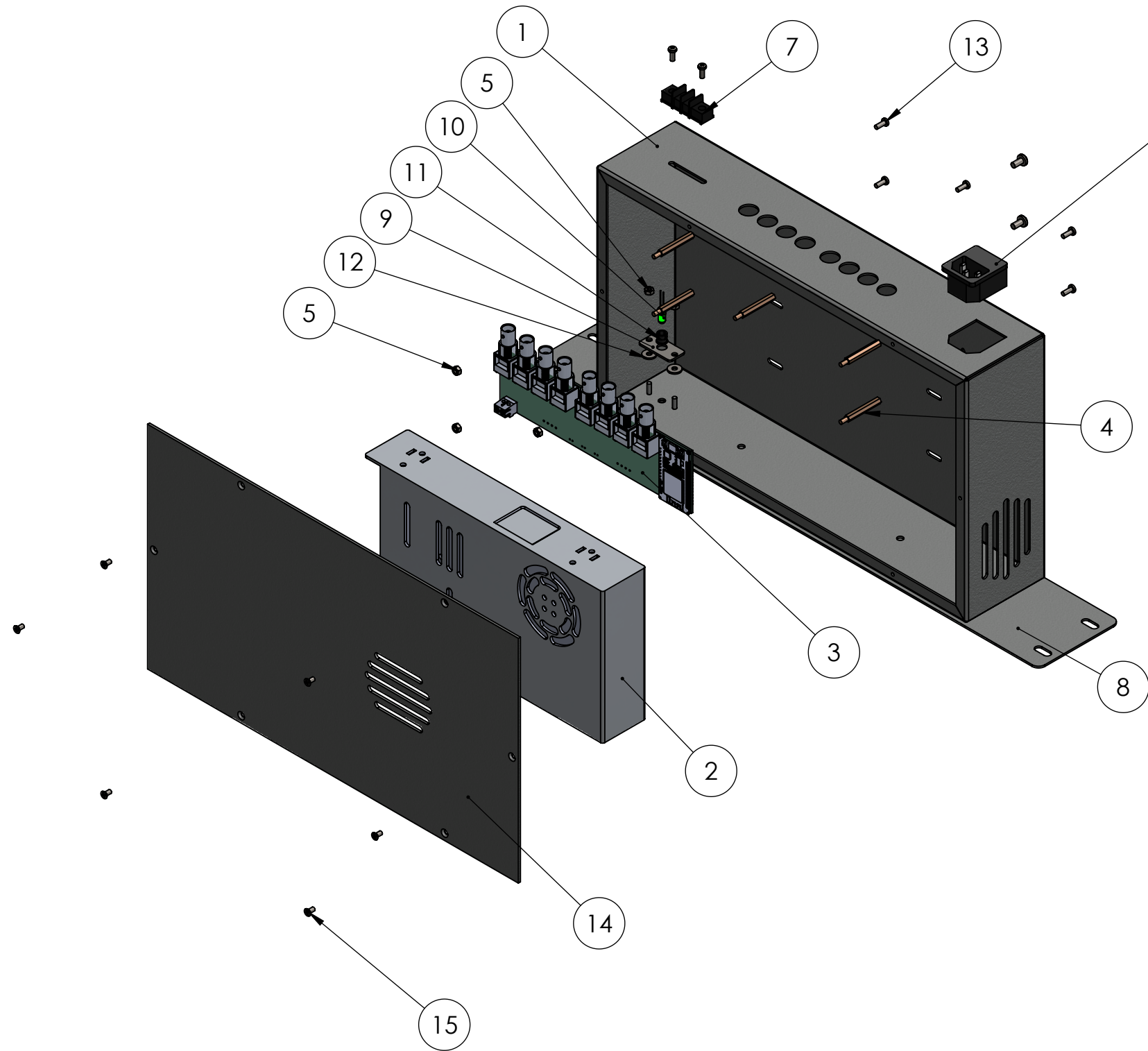


	NAMA	TANGGAL	PARAF	MOUNTING LED HOLDER			
DIGAMBAR							
DIPERIKSA							
DISETUJUI							
DISAHKAN							
				BAHAN:	NO. GAMBAR:	REVISI:	FORMAT
				Besi plat 1.2 mm	-		A3
				BERAT: -	SKALA: 3:1		



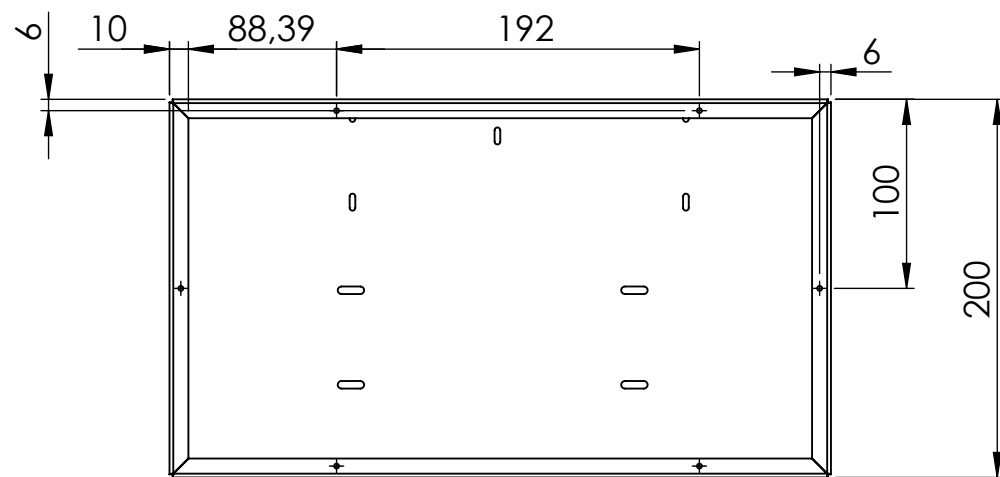


	NAMA	TANGGAL	PARAF	MOUNTING LAYAR FURUNO		PROYEKSI: 	
DIGAMBAR	HERDI	14-02-2023					
DIPERIKSA							
DISETUJUI							
DISAHKAN							
 DIVISI REKAYASA & PENGEMBANGAN PRODUK PT. INDUSTRI TELEKOMUNIKASI INDONESIA (PERSERO) JL. MOCH. TOHA NO.77, BANDUNG 40253				BAHAN:	NO. GAMBAR:	REVISI:	FORMAT
					-		A3
				BERAT: -	SKALA: 1:4		

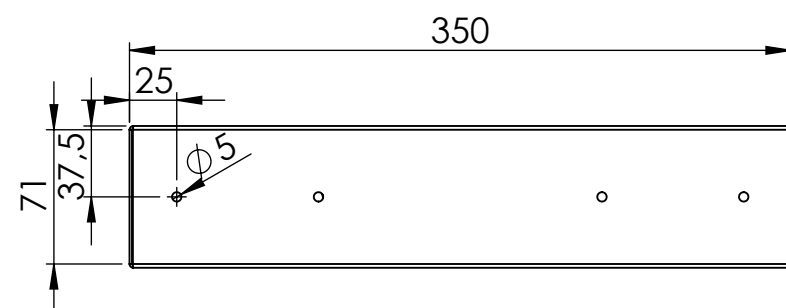


ITEM NO.	PART NAME	DESCRIPTION	QTY.
1			1
2			1
3			1
4			5
5			5
6			1
7			1
8			1
9			1
10			1
11			1
12			2
13			9
14			1
15			6

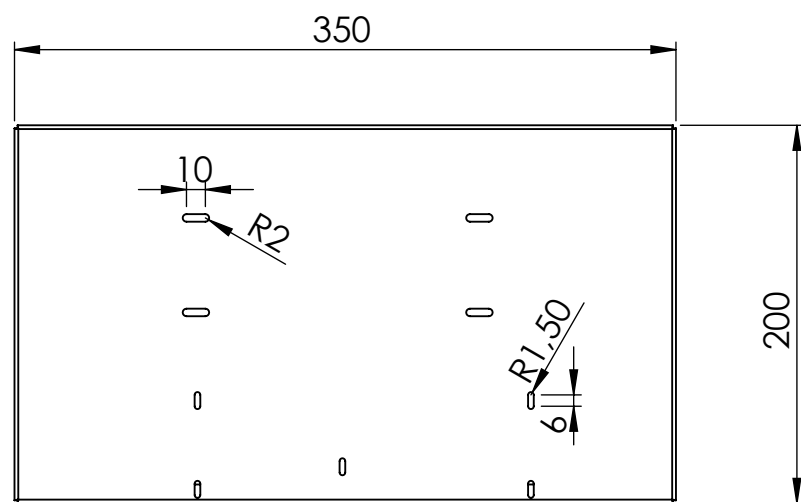
	NAMA	TANGGAL	PARAF	NAMA:		PROYEKSI:	
DIGAMBAR				ASSEMBLY CHART BOX SIGNAL CONDITION SANTANU			
DIPERIKSA							
DISETUJUI							
DISAHKAN							
 DIVISI PENJUALAN & PEMASARAN PT. INDUSTRI TELEKOMUNIKASI INDONESIA (PERSERO) JL. MOCH. TOHA NO.77, BANDUNG 40253				BAHAN:	NO. GAMBAR:	REVISI:	FORMAT
				-	-		A3
				BERAT: -	SKALA: 1:3.5		



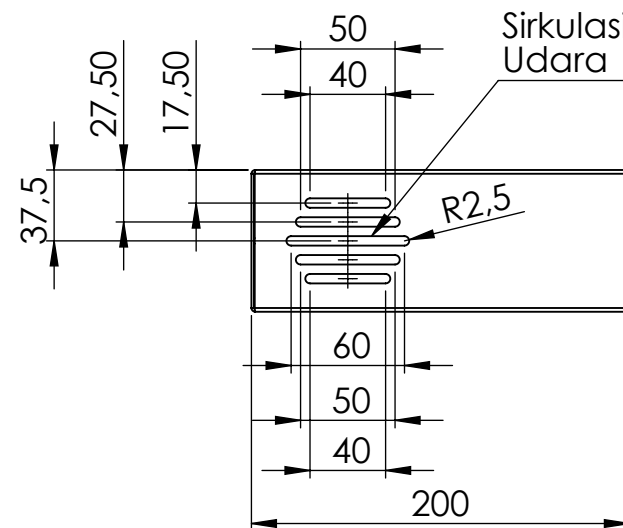
TAMPAK ATAS



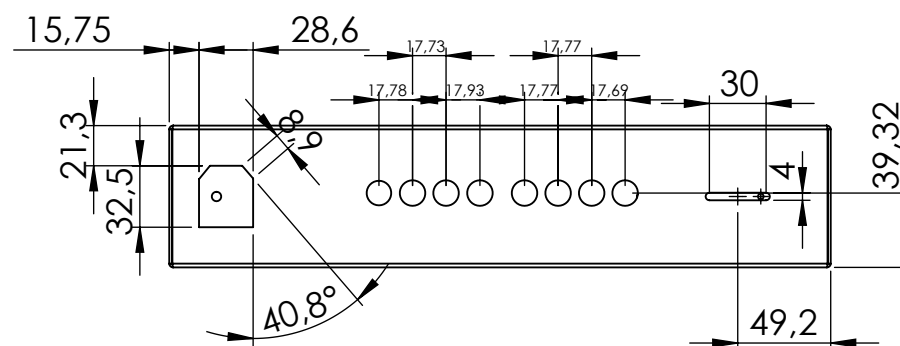
TAMPAK DEPAN



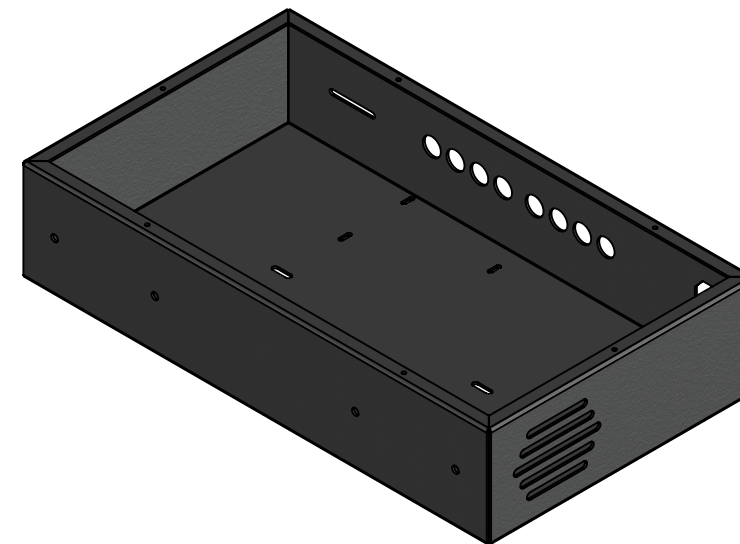
TAMPAK BAWAH



TAMPAK SAMPING KIRI

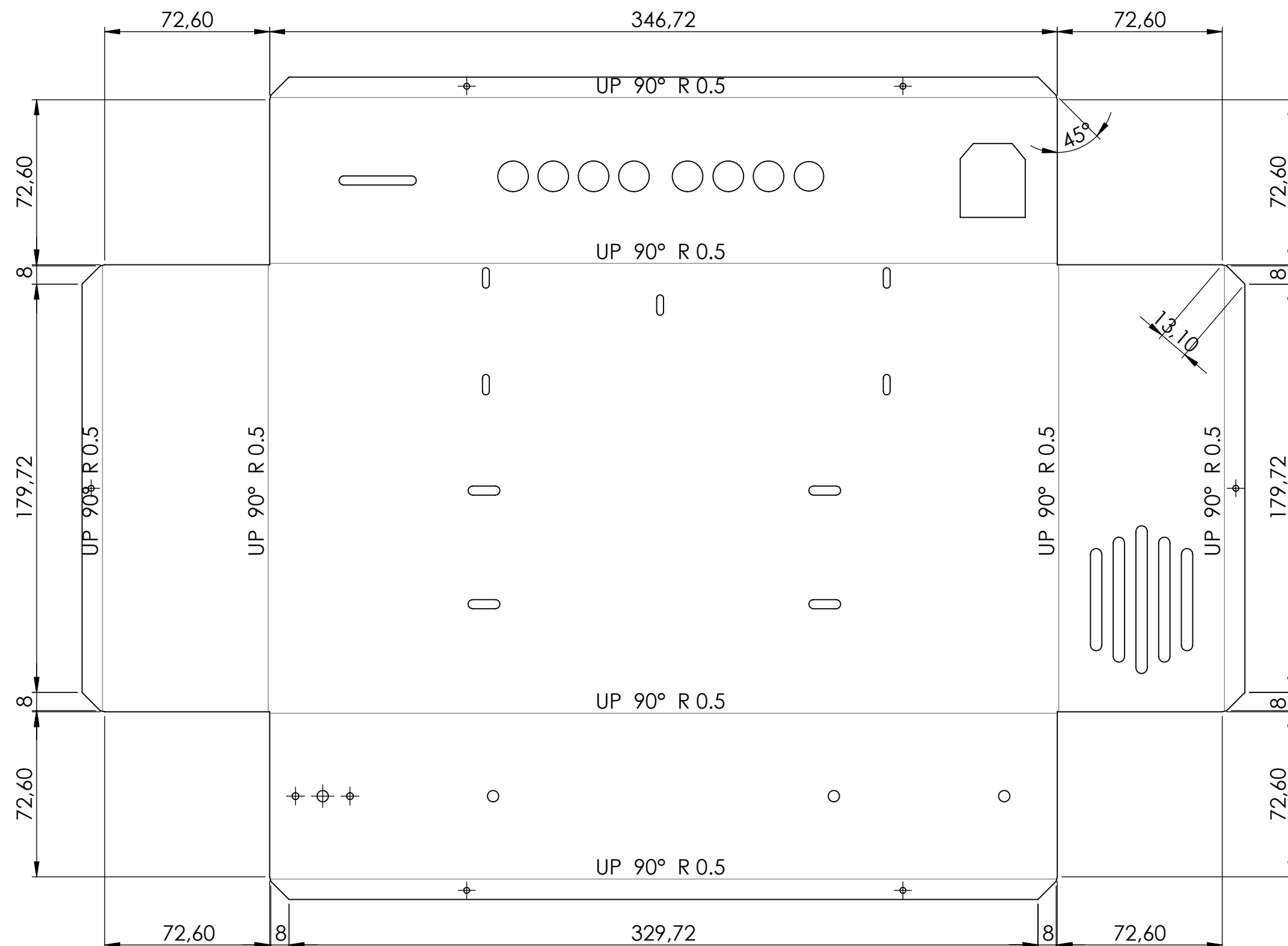


TAMPAK BELAKANG

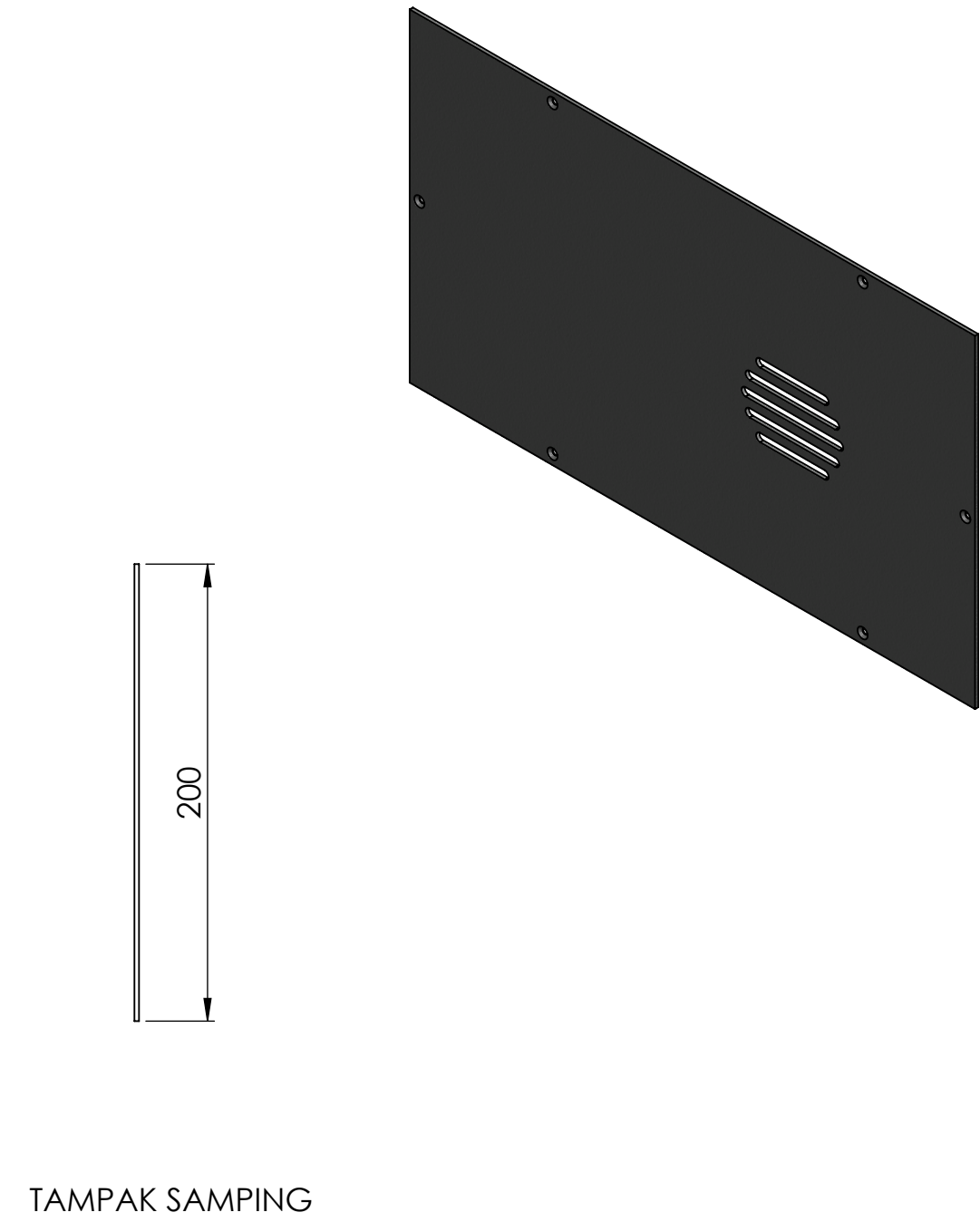
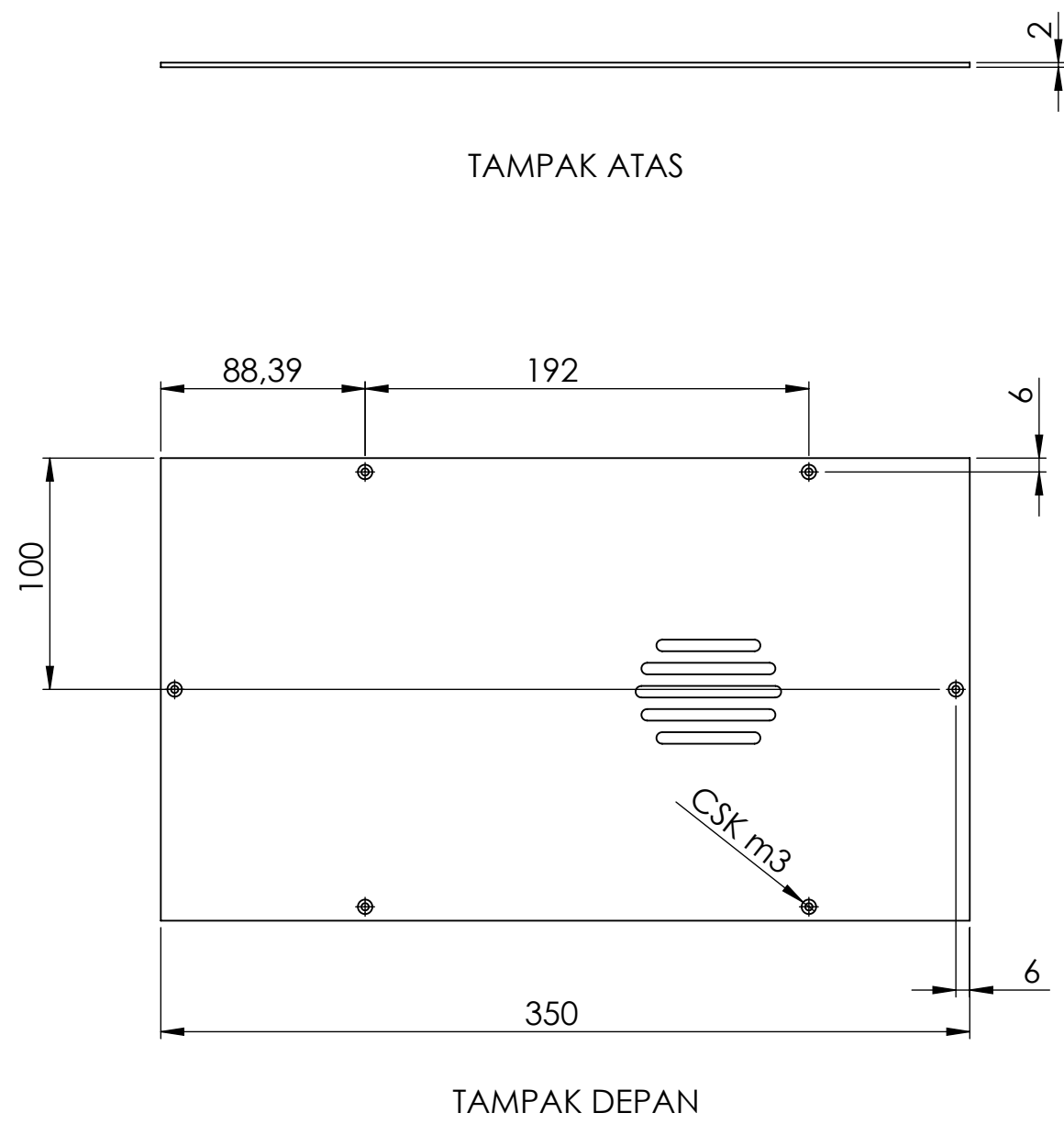


TAMPAK ISOMETRI

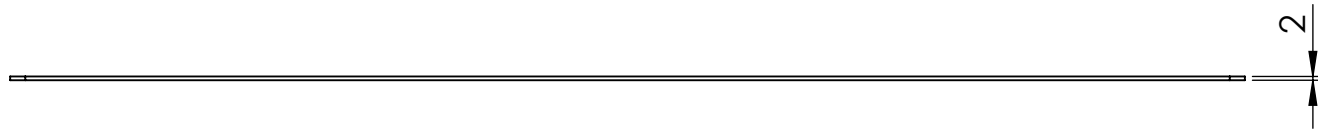
	NAMA	TANGGAL	PARAF	NAMA:		PROYEKSI:	
DIGAMBAR				BASE BOX SIGNAL CONDITION SANTANU			
DIPERIKSA							
DISETUJUI							
DISAHKAN							
				BAHAN:		NO. GAMBAR:	REVISI:
				BESI PLAT 1.5 MM		-	FORMAT
				BERAT: -		SKALA: 1:4	



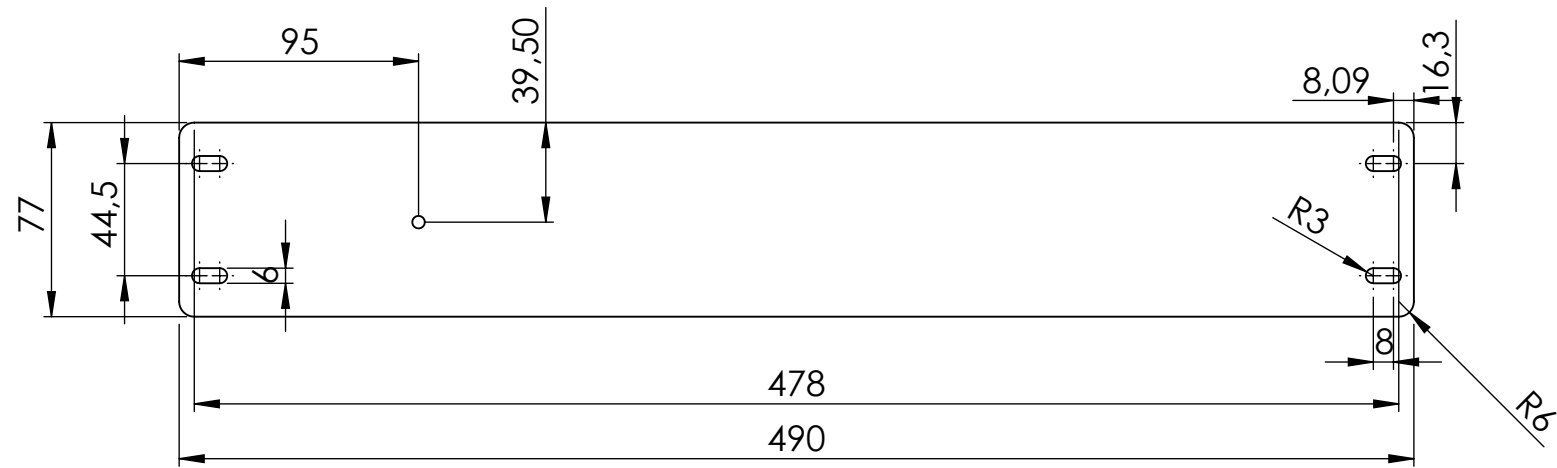
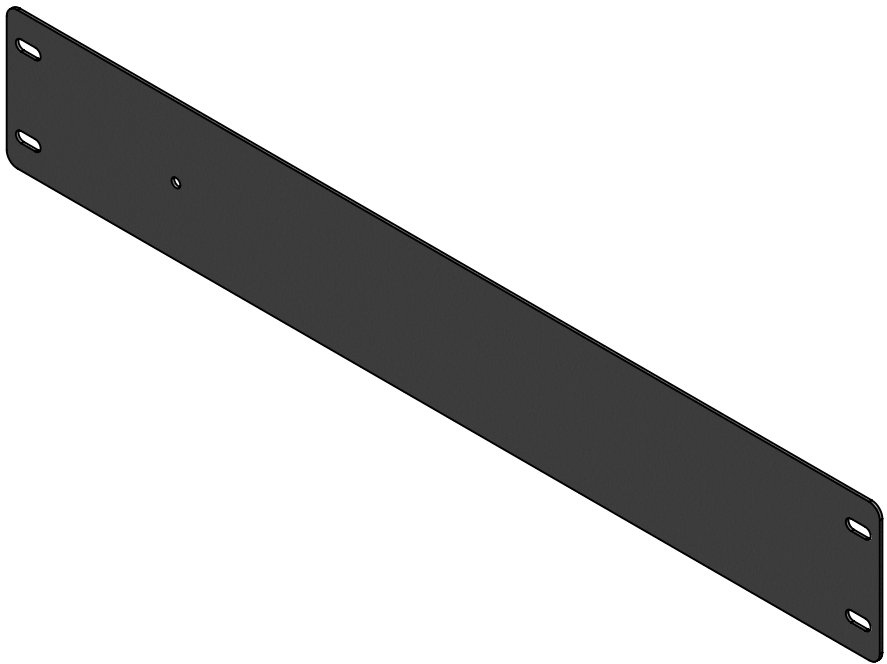
	NAMA	TANGGAL	PARAF	NAMA:		PROYEKSI:	
DIGAMBAR				FLAT PATERRN BASE BOX SIGNAL CONDITION SANTANU			
DIPERIKSA							
DISETUJUI							
DISAHKAN							
 DIVISI PENJUALAN & PEMASARAN PT. INDUSTRI TELEKOMUNIKASI INDONESIA (PERSERO) JL. MOCH. TOHA NO.77, BANDUNG 40253				BAHAN:	NO. GAMBAR:	REVISI:	FORMAT
				Plat 1.5 mm	-		A3
				BERAT: -	SKALA: 1:2		



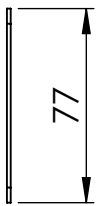
	NAMA	TANGGAL	PARAF	NAMA:		PROYEKSI:	
DIGAMBAR				TUTUP BOX SIGNAL CONDITION SANTANU			
DIPERIKSA							
DISETUJUI							
DISAHKAN							
				BAHAN:		NO. GAMBAR:	FORMAT
				Besi Plat tebal 2 mm		-	A3
				BERAT: -		SKALA: 1:3	



TAMPAK ATAS

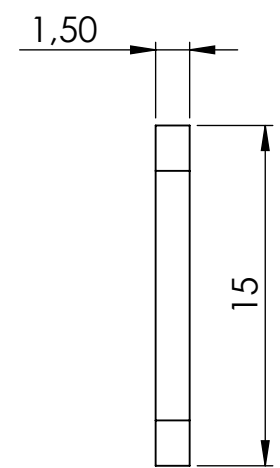
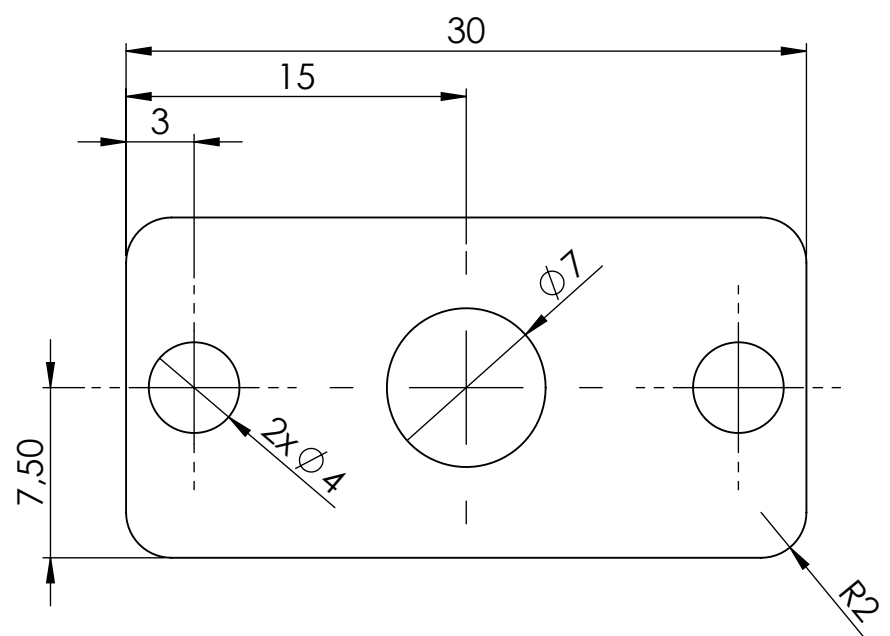
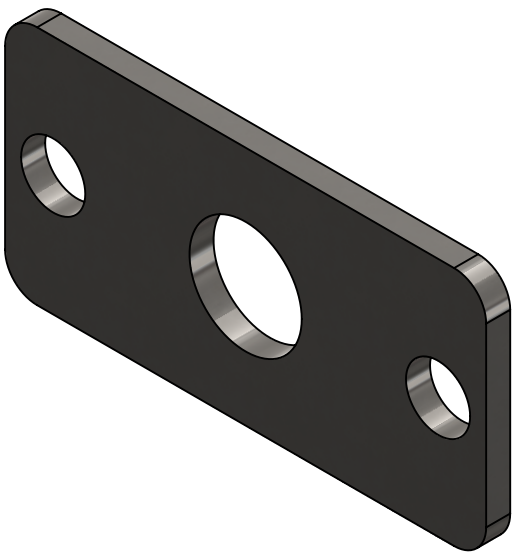


TAMPAK DEPAN



TAMPAK SAMPING

	NAMA	TANGGAL	PARAF	NAMA:		PROYEKSI:	
DIGAMBAR				BRACKET BOX SIGNAL CONDITION SANTANU			
DIPERIKSA							
DISETUJUI							
DISAHKAN							
 DIVISI PENJUALAN & PEMASARAN PT. INDUSTRI TELEKOMUNIKASI INDONESIA (PERSERO) JL. MOCH. TOHA NO.77, BANDUNG 40253				BAHAN:	NO. GAMBAR:	REVISI:	FORMAT
				BESI PLAT 2 MM	-		A3
				BERAT: -	SKALA: 1:3		



	NAMA	TANGGAL	PARAF	NAMA: Mounting LED Holder		PROYEKSI: 	
DIGAMBAR							
DIPERIKSA							
DISETUJUI							
DISAHKAN							
 DIVISI PENJUALAN & PEMASARAN PT. INDUSTRI TELEKOMUNIKASI INDONESIA (PERSERO) JL. MOCH. TOHA NO.77, BANDUNG 40253				BAHAN:	NO. GAMBAR:	REVISI:	FORMAT
				Besi plat 1.2 mm	-		A3
				BERAT: -	SKALA: 3:1		