Version 7.0 December 2024

TB9400 Base Station – P25, DMR, ANALOG

- Base Stations
- Options & Accessories

PREFACE

Please read before using this product catalog.

Copyright:

Scope:

This product catalog outlines the Tait product range.

Custom product and non-standard equipment is not listed. Please contact your Tait representative if you require information on any product not listed within this book.

Product Status:

Every care has been taken to assure that the products meet the respective regulatory requirements. However, Tait does not warrant that all products meet specific country requirements.

If you have any questions regarding product suitability please contact your Tait representative.

Terms and Conditions of Sale:

All sales and quotations for Tait products and services are subject to the current version of the Tait Standard Terms and Conditions for Supply. For a copy of the Terms and Conditions please contact your Tait representative

Confidentiality:

This product catalog contains information which is confidential and is solely for the use of the intended recipient. If you are not the intended recipient, be aware that any review, disclosure, copying, distribution, or use of the contents of this catalog is strictly prohibited. If you have received this in error, please destroy it and notify us immediately notices@taitradio.com

Trademarks:

The words “Tait”, “Tait Unified”, "TeamPTT" and the “Tait” logo are trademarks of Tait International Limited. Access to the Tait Websites does not confer on you any license in respect of any of Tait intellectual property.

Update and Changes:

The information within the product catalog is subject to change without notice and shall not form part of any contract. This information is issued for guidance purposes only. Please note that not all frequency bands and power outputs are available in all markets.

TB9400

Intelligent • Flexible • High Performance

The TB9400 base station is the second generation Multimode base station with IP connectivity from Tait. It supports Analog, DMR and P25 Phase1 and Phase2. The multimode capability makes it possible to migrate between Analog/P25/DMR networks as well as simplifying stockholding. The possible P25 Ph1 to Ph2 software migration enables customers to transition to a more spectrally efficient solution with greater capacity while future proofing their investment.

The TB9400 delivers on deployment and operational efficiency with Phase 2 upgradability, Linear Simulcast Modulation (LSM), and remote network management.

The TB9400 base station is the main component of the Tait AS-IP (Analog Simulcast over IP) network. It is an ideal platform to migrate to either DMR or P25 in the future from an Analog

The TB9400 offers the following features:

- P25 Phase1 trunked base station with TDMA hardware and software-upgradability to P25 Phase2 TDMA for increased capacity
- P25 Phase1 or 2 trunked, and P25 Phase 1 Conventional and Analog simulcast operation
- P25 standards compliance for greater choice and interoperability
- P25 Phase1 Conventional and Analog Conventional Simulcast operation
- IP connectivity allows efficient network design and scaling
- Linear Simulcast Modulation (LSM) means simulcast networks with fewer sites
- Extensive remote management and monitoring options with a focus on security
- MIL-STD designed and tested for reliability to mitigate network outages

Range	Tait Band	50W	100W	50W DUAL
136–174MHz	B1	✓	✓	✓
378-420MHz	HH	✓	✓	✓
400-440MHz	H1	✓	✓	✓
440-480MHz	H2	✓	✓	✓
470-520MHz	H3	✓	✓	✓
762-870MHz	K4	✓	✓	✓

Note:

- Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

Intelligent • Flexible • High Performance

P25 Phase 1 and 2

- The TB9400 is upgradable by software to enable Phase1 and Phase2 operation.

Linear Simulcast Modulation (LSM)

- The TB9400 supports trunked simulcast and with LSM option. P25 Phase1 LSM is highly recommended for Phase2 Simulcast operations.

Digital Control Design

- The TB9400 features a state-of-the-art RISC processor and Digital Signal Processor (DSP), providing very fast, reliable processing through the latest in digital technology.

P25 Phase1 Conventional and Analog Simulcast

- The TB9400 supports P25 Phase1 Conventional Analog Simulcast and is fully re-useable when migrating to P25 Trunked Simulcast Phase1/Phase2

Convenient Modular Design

- Designed for ease of hook-up and adaptation in the field, the TB9400 is configured with front-loading modules that can be mixed and matched to meet your system needs. The TB9400 gives you the flexibility to make module changes in the field.

Built-in Standard Interfaces

- The TB9400 has built-in a variety of industry-standard IP interfaces to enable easy connectivity to the rest of your system. These include HTTPS web browser access for maintenance and SNMP for monitoring.

Power Management System

- The comprehensive power management system provides the ability to automatically switch between AC and DC input power, to move to battery operation in the case of power failure, and to provide an auxiliary output power supply for third-party equipment.

Complete Remote Accessibility

- The advanced web interface of the TB9400 makes remote management of your system simple. The web interface uses HTTPS which provide security for the transactions between the web browser and the base station. Parameters can be configured or monitored remotely with a web browser and multiple user accounts are supported for user access control.

Robust Specifications

- Built to exceed standard specifications, the TB9400 is designed to withstand extreme temperature conditions. Engineered for maximum reliability, the TB9400 has large heat sinks, advanced cooling, and the intelligence to maintain the highest possible levels of service in adverse environments.

Peak RF Performance

- With outstanding specifications for selectivity, adjacent channel interference and fast key-up times, the TB9400 base station was designed using the best RF practices.

Edition: 18

TB9400

Product Codes for Commercial Packages

Dual Channel Configuration

Single Channel Configuration

Product Type | **Channel One** | **Channel Two or RX Only Channel** | **Power Management Unit** | **PMU Power Cord** | **Common License / SFE Options or Custom Product**

T B 9 4 X X X X X X X X X X X X X X

Product Type

~~10 = Upgrade kit from TB9100 to TB9400 50W Single/Dual~~
~~30 = Upgrade kit from TB9100 to TB9400 100W Single~~
~~40 = Upgrade kit from TB9100 to TB9400 Multi Reciter~~

15 = P25 Single/Dual 50W Base Station/Repeater with PMU
35 = P25 Single 100W Base Station/Repeater with PMU
44 = P25 Multi Reciter Max 4 Channels with PMU
~~46 = P25 PH2 Multi Reciter Max 8 Channels without PMU~~

60 = DMR Single/Dual 50W Base Station/Repeater with PMU
64 = DMR Multi Reciter Max 4 Channels with PMU
65 = DMR Single 100W Base Station/Repeater with PMU

90 = Spare Modules

Frequency Band CH1

B1 = 136-174MHz
~~B2 = 146-156MHz~~
~~B3 = 148-174MHz~~
HH = 378-420MHz
H1 = 400-440MHz
H2 = 440-480MHz
H3 = 470-520MHz
K4 = RX 794-824M, TX 762-870M

Options

0 = None
~~1 = Upgrade Rx 4 Channel~~
~~2 = Upgrade Rx 6 Channel~~

RF Power CH1

0 = None ~~(Upgrade Kits Only)~~
H = 50 Watt
M = 100 Watt (Single Channel Only)

Receiver Only CH1

Receiver Only CH1

1 = One Receiver
2 = Two Receivers
3 = Three Receivers
4 = Four Receivers
~~5 = Five Receivers~~
~~6 = Six Receivers~~

Reciter Only CH1

A = One Reciter
B = Two Reciters
C = Three Reciters
E = Four Reciters
~~F = Five Reciters~~
~~G = Six Reciters~~

With PMU fitted, a maximum total of 4 Channels is permitted across CH1/CH2 subgroups.
~~With no PMU fitted, a maximum total of 6 Channels is permitted across CH1/CH2 subgroups.~~

Frequency Band CH2

00 = No Frequency (Single Channel)
B1 = 136-174MHz
~~B2 = 136-156MHz~~
~~B3 = 148-174MHz~~
HH = 378-420MHz
H1 = 400-440MHz
H2 = 440-480MHz
H3 = 470-520MHz
K4 = RX 794-824M, TX 762-870M

Options

0 = None

RF Power CH2

0 = None (RX or Single Channel Only in Channel One)
H = 50 Watt

Single TN911X Gateway Options

C = Console Gateway
T = Trunked Analog Gateway

Receiver Only CH2

Receiver Only CH2

0 = No Receivers
1 = One Receiver
2 = Two Receivers
3 = Three Receivers
4 = Four Receivers
~~5 = Five Receivers~~
~~6 = Six Receivers~~

Reciter Only CH2

0 = No Reciters
A = One Reciter
B = Two Reciters
C = Three Reciters
E = Four Reciters
~~F = Five Reciters~~
~~G = Six Reciters~~

With PMU fitted, a maximum total of 4 Channels is permitted across CH1/CH2 subgroups.
~~With no PMU fitted, a maximum total of 8 Channels is permitted across CH1/CH2 subgroups.~~

Power Management Unit

0 = No PMU ~~(Upgrade Kits Only)~~
A = AC aux12/24/48
~~B = AC aux24~~
C = DC12 aux12
D = DC12 aux24
E = DC24 aux12
F = DC24 aux24
G = DC48 aux12
H = DC48 aux24
J = ACDC12 aux12
K = ACDC12 aux24
L = ACDC24 aux12
M = ACDC24 aux24
N = ACDC48 aux12
P = ACDC48 aux24
~~Q = AC aux48~~
R = DC12 aux48
S = DC24 aux48
T = DC48 aux48
U = ACDC12 aux48
V = ACDC24 aux48
W = ACDC48 aux48

PMU Cord and Country

0 = None
1 = NZ / Aus
2 = UK
3 = EU
4 = US / Can
5 = Brazil

P25 SFE Software Options

00 = None

AA = TBAS050
AC = TBAS071
AD = TBAS060

BA = TBAS050 & TBAS056 (P25 Trunked Full)
BC = TBAS061 & TBAS062
BD = TBAS062 & TBAS071
BF = TBAS050 & TBAS060
BJ = TBAS050 & TBAS070 (P25 Access)
BK = TBAS050 & TBAS072 (P25 Express6)

CA = TBAS050 & TBAS056 & TBAS061
CB = TBAS050 & TBAS056 & TBAS063
CC = TBAS050-R0 & TBAS056-R0 & TBAS061-R0

DA = TBAS050 & TBAS056 & TBAS061 & TBAS062
DB = TBAS050 & TBAS056 & TBAS061 & TBAS063

EA = TBAS050 & TBAS056 & TBAS061 & TBAS062 & TBAS063
EB = TBAS050 & TBAS056 & TBAS061 & TBAS062 & TBAS065

FB = TBAS050 & TBAS056 & TBAS061 & TBAS062 & TBAS063 & TBAS065
(Software Options will be allocated as required)

DMR SFE Software Options

00 = None
AA = TBAS300 DMR Trunking - SFE License
** AC = TBAS302 DMR Express - SFE License
***AD = TBAS303 DMR Access6 - SFE License
AE = TBAS304 DMR Conventional - SFE License
AF = TBAS305 DMR Express20 - SFE License

BA = TBAS300 & TBAS304
BB = TBAS302 & TBAS304
BC = TBAS303 & TBAS304
BD = TBAS300 & TBAS306
BE = TBAS300 & TBAS307
BF = TBAS302 & TBAS306
BG = TBAS302 & TBAS307
BH = TBAS303 & TBAS306
BJ = TBAS303 & TBAS307
BK = TBAS305 & TBAS306
BL = TBAS305 & TBAS307
BM = TBAS304 & TBAS306
BN = TBAS304 & TBAS307

SFE Key Reference Details
****TBAS306 Central Voter (Master)
*****TBAS307 IP Networking (Satellite)

TBAS301 DMR Analog Air Interface is fitted as standard.

** TBAS302 must only be used in conjunction with DMR Express Node License TNAS320.

***TBAS303 is a stand alone Base Station license which is used on a DMR Access system. (i.e: No DMR Node is present on this type of system)

**** TBAS306 & TBAS307 only work in conjuction with a DMR Digital mode, DMR TierII or DMR TierIII

Please Note:

Not all products have compliance in all regions/countries. Please check the Tait Product Specifications sheet or contact your Tait Representative for further information.

Example of: TB9415H1H00000J100

Product Type
TB94 =
15 = P25 Bstn/Rptr, Single 50W with PMU (Default Items for TB9400)
(TB9415S-050T) Subrack Assembly
Channel One
H1 = Frequency Band 400-440MHz (T01-11103-NAAA) Reciter
H = RF Power 50 Watts (T01-11121-NBAA) Power Amplifier
0 = Options None
Channel Two
00 = Frequency Band None
0 = RF Power None
0 = Options None
Power Management Unit and SFE Options
J = PMU AC/DC12V and Aux 12V PMU (TBA30A1-1100-S)
1 = Power Cord NZ/AUD (219-01000-00)
SFE OPtions and/or Custom Product
00 = Software Keys No SFE Keys

02 December 2024

Doc ID: 4787

Base Station – 50W Single, Dual & 100W Single

Standard Package Includes:

- Subrack including front panel with triple fans
- Control panel
- Power Management Unit (PMU) options as selected
- Power Amplifier (PA)
- Reciter (receiver/exciter) with system interface
- Installation guide

Options:

- PMU options are:
  - AC = Input of 110/240VAC with AUX output
  - DC = Input of 12/24/48VDC with AUX output
  - ACDC = Inputs of 110/240VAC + 12/24/48VDC with AUX output
  - Auxiliary (AUX) power output voltage options are 12VDC, 24VDC or 48VDC AUX.
  - Choose the PMU from the TB9400 Base Station configuration table on page 4
- Power Cord options:
  - Choose the Power Cord from the TB9400 Base Station configuration table on page 4. Please note that DC PMU option, power cord is not required.
- Licenses
  - Choose the Licenses from the TB9400 Base Station configuration table on page 4

Note:

- Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.
- Additional configuration costs may apply, any queries, please contact your Tait customer support representative.
- For more configuration options, please refer to the TB9400 Base Station configuration table on page 4

Frequency	Range	Tait Band	TB9415 / 60 Single/Dual 50W with PMU	TB9435 / 65 Single 100W with PMU	TB9444 / 64 Multi Reciter Max 4 Channel with PMU
VHF	136-174MHz	B1	✓	✓	
UHF	378-420MHz	HH	✓	✓	
	400-440MHz	H1	✓	✓	
	440-480MHz	H2	✓	✓	
	470-520MHz	H3	✓	✓	
700/800MHz	RX 794-824MHz TX 762-870MHz	K4	✓	✓	

Base Station – Receive Only

Standard Package Includes:

- Subrack including front panel with triple fans
- Control panel
- Power Management Unit (PMU) options as selected
- Power Amplifier (PA)
- Reciter (receiver/exciter) with system interface
- Installation guide

Options:

- Receive Only options are:
  - Choose the number of receivers required from 1 to 4
- PMU options are:
  - AC = Input of 110/240VAC with AUX output
  - DC = Input of 12/24/48VDC with AUX output
  - ACDC = Inputs of 110/240VAC + 12/24/48VDC with AUX output
  - Auxiliary (AUX) power output voltage options are 12VDC, 24VDC or 48VDC AUX.
  - Choose the PMU from the TB9400 Base Station configuration table on page 4
- Power Cord options:
  - Choose the Power Cord from the TB9400 Base Station configuration table on page 4. Please note that for DC PMU option a power cord is not required.
- Licenses
  - Choose the Licenses from the TB9400 Base Station configuration table on page 4

Note:

- Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.
- Additional configuration costs may apply, any queries, please contact your Tait customer support representative.
- For more configuration options, please refer to the TB9400 Base Station configuration table on page 4

Frequency	Range	Tait Band	TB9415 Single/Dual 50W with PMU	TB9435 Single 100W with PMU	TB9444 / 64 Multi Reciter Max 4 Channel with PMU
VHF	136-174MHz	B1			✓
UHF	378-420MHz	HH			✓
	400-440MHz	H1			✓
	440-480MHz	H2			✓
	470-520MHz	H3			✓
700/800MHz	RX 794-824MHz TX 762-870MHz	K4			✓

Regulatory Compliances

REGULATORY	P25, ANALOG FM	DMR
USA (CFR 47)	B1, HH, H1, H2, H3, K4	B1, H2
Canada (RSS-119)	B1, HH, H1, H2, H3, K4	B1, H2
Europe (EN300-113, EN301-489, EN60950)	B1, H1, H2	B1, H2
Australia/New Zealand (AS/NZS4768)	B1, H1, H2	B1, H2

NOTE: B2,B3 bands are obsolete but existing product are still compliant.

P25 Software Licenses

P25	
ITEM CODE	**DESCRIPTION**
TBAS050	SFE Key - P25 Common Air Interface (CAI) (91/94)
TBAS054	SFE Key - MDC1200 Signalling on Analog Line (91/94)
TBAS056	SFE Key - P25 Trunking Operation (91/94)
TBAS060	SFE Key - Digital Fixed Station Interface (91/94)
TBAS061	SFE Key - Central Voter (91/94)
TBAS062	SFE Key - Simulcast Enable Phase I (91/94)
TBAS063	SFE Key - Failsoft for P25 Trunking (91/94)
TBAS065	SFE Key - P25 Linear Simulcast Modulation (LSM) (94)
TBAS066	SFE Key - Trk Phase 2 Operation (94)
TBAS069	SFE Key - Simulcast Enable Phase 2 (94)
TBAS070	SFE Key - P25 Access
TBAS071	SFE Key - IP Networking Satellite
TBAS072	SFE Key - P25 Express6
TBAS073	SFE Key - TaskBuilder
ANALOG	
ITEM CODE	**DESCRIPTION**
TBAS041	SFE Key - Analog Air Interface (94)
TBAS061	SFE Key - Central Voter (91/94)
TBAS062	SFE Key - Simulcast Enable Phase I (91/94)
TBAS071	SFE Key - IP Networking Satellite
TBAS073	SFE Key - TaskBuilder
P25 RX-ONLY	
ITEM CODE	**DESCRIPTION**
TBAS050-R0	SFE Key - P25 Common Air Interface (CAI) RxOnly (91/94)
TBAS054-R0	SFE Key - MDC1200 Signalling on Analog Line (91/94)
TBAS056-R0	SFE Key - P25 Trunking Operation RxOnly (91/94)
TBAS060-R0	SFE Key - Digital Fixed Station Interface RxOnly (91)
TBAS061-R0	SFE Key - Central Voter RxOnly (91)
TBAS066-R0	SFE Key - Trk Phase 2 Operation Rx Only (94)
TBAS070-R0	SFE Key - P25 Access Rx Only
TBAS071-R0	SFE Key - IP Networking Satellite Rx Only
TBAS072-R0	SFE Key - P25 Express6 Rx Only

TBAS073	SFE Key - TaskBuilder

DMR Software Licenses

ITEM CODE	DESCRIPTION
TBAS300	SFE Key - DMR Trunking SFE License with TDMA operation (93/73)
TBAS301	SFE Key - Analog Air Interface (93/73) – *Fitted as standard*
TBAS302	SFE Key - DMR Express6 SFE License with TDMA operation (93/73)
TBAS303	SFE Key - DMR Access SFE License with TDMA operation (93/73)
TBAS304	SFE Key - DMR Conventional SFE License with TDMA operation (93/73)
TBAS305	SFE Key - DMR Express20 SFE License with TDMA operation (93/73)
TBAS306	SFE Key - DMR Central Voter (93/73) (Master)
TBAS307	SFE Key - DMR IP Networking (93/73) (Satellite)
TBAS073	SFE Key - TaskBuilder

Edition: 07

TaitNet Base Station Licences

P25 (TB9400)

Item Code	Description	Rules of Engagment
TBAS050 - P25 Common Air Interface (91/94)	The P25 common air interface feature allows the base station to transmit and receive P25 digital voice transmissions.	Fitted if P25 Conventional operation is required.
TBAS054 - MDC1200 Signalling (91/94)	The MDC1200 Signalling feature allow signalling on the analog line in P25 digital mode.	This SFE requires TBAS050 to be fitted before MDC1200 Signalling operation is available.
TBAS056 - P25 Trunking Operation (91/94)	The trunking feature allows a base station to become a trunking master, functioning as an interface between the trunking site controller and the channel group. The availability of this feature license is restricted.	This SFE requires TBAS050 to be fitted before P25 Trunking will function.
TBAS060 - DFSI (91/94)	Digital Fixed Station Interface.	This SFE is required to be fitted in the reciter to allow a DFSI connection to a Digital Dispatch System
TBAS061 - Central Voter (91/94)	The central voter feature allows the network element to act as a central voter within its channel group. This feature also allows voice networking. All base station in a voter configuration need this SFE.	This SFE requires TBAS050 to be fitted before Central Voter function is available. Must be fitted to all base stations in simulcast or Rx only configs
TBAS062 - Simulcast (91/94)	The simulcast enable feature is required in base stations which have transmitters and belong to a simulcast Phase 1 C4FM network. (Upgradable to LSM Phase 1 or DQPSK Phase 2)	This SFE requires TBAS061 to be fitted before Simulcast Enable function is available.
TBAS063 - P25 Trunking Failsoft (91/94)	The failsoft for P25 trunking feature allows trunked channels which become isolated from a site controller to perform simple conventional operation and to interface to a digital dispatch system. If a trunked channel consists of several base stations in a channel group, only the central voter (normally the master) needs this license. It is then able to become the failsoft gateway.	This SFE requires TBAS056 to be fitted before Failsoft for P25 Trunking function is available.
TBAS065 - Linear Simulcast Modulation (94)	This enables a DQPSK Linear Simulcast Modulation. This modulation has improved delay spread characteristics when compared to Phase 1 C4FM, that allow increased site separation in simulcast systems.	This SFE requires TBAS062 to be fitted before LSM for P25 Simulcast function is available.
TBAS066 - P25 Phase 2 Trunking (94)	The Phase 2 SFE feature licence allows TDMA function to be available.	This SFE requires TBAS050 and TBAS056 to be fitted before P25 Phase 2 Trunked operation function is available.
TBAS069 - P25 Phase 2 Simulcast (94)	This enables DQPSK Simulcast Modulation for Phase 2 operation. This modulation has improved delay spread characteristics when compared to Phase 1 C4FM, that allow improved site seperation in simulcast systems.	This SFE requires TBAS062 to be fitted before Simulcast Enable Phase 2 function is available. TBAS065 is also strongly recommended for LSM when switching from Phase 2 to Phase 1 mode.
TBAS070 - P25 Access (94)	The Access feature allows a base station to become a trunking master, functioning as an interface between the trunking site controller and the channel group. The availability of this feature license is restricted.	This SFE requires TBAS050 to be fitted before P25 Access will function. Restricted to one functional site.
TBAS071 - IP Networking Satellite (94)	The IP Networking Satellite enable feature is required for networking on Analog Voting Satellite and Voting Receiver and Simulcast configurations.	This SFE requires TBAS041(Defaulted) to be fitted before Analog Channel Group Satellite Enable function is available.
TBAS072 - P25 Express6 (94)	The Express6 feature allows a base station to become a trunking master, functioning as an interface between the trunking site controller and the channel group. The availability of this feature license is restricted.	This SFE requires TBAS050 to be fitted before P25 Express6 will function. Restricted to six functional site.

P25 (TB9400 Rx-only)

Item Code	Description	Rules of Engagment
TBAS050-R0 - P25 Common Air Interface RxOnly (91/94)	The P25 common air interface Receiver Only feature allows a Monitor Receiver to receive P25 digital voice transmissions.	Fitted if P25 Rx-Only Conventional operation is required.
TBAS054-R0 - MDC1200 Signalling (91/94)	The MDC1200 Signalling Reciver Only feature allow signalling on the analog line in P25 digital mode.	This SFE requires TBAS050-R0 to be fitted before Rx-Only MDC1200 Signalling operation is available.
TBAS056-R0 - P25 Trunking Operation RxOnly (91/94)	The Trunking Receiver Only feature allows a Voting Receiver to operate in a P25 Trunking format.	This SFE requires TBAS050-R0 to be fitted before P25 Trunking will function.
TBAS060-R0 - DFSI RxOnly (91/94)	Digital Fixed Station Interface for Receiver Only features.	This SFE is required to be fitted in the receiver Only to allow a DFSI connection to a Digital Dispatch System
TBAS061-R0 - Central Voter RxOnly (91/94)	The Central Voter Receiver Only feature allows the network element to act as a Receiver only in a central voter system within its channel group. This feature also allows voice networking. The other members of the channel group also require the central voter SFE.	This SFE requires TBAS050-R0 to be fitted before the Rx-Only Central Voter function is available.
TBAS066-R0 - P25 Phase 2 Trunking RxOnly (94)	The Phase 2 SFE feature licence allows TDMA function to be available on Receiver Only setups.	This SFE requires TBAS050-R0 and TBAS056-R0 to be fitted before P25 Phase 2 Trunked Rx-Only operation function is available.
TBAS070-R0 - P25 Access RxOnly (94)	The Access Rx-Only feature allows a Receiver to connect to a Access Trunked configuration. The availability of this feature license is restricted.	This SFE requires TBAS050-R0 to be fitted before P25 Access Rx-Only will function.
TBAS071-R0 - IP Networking Satellite RxOnly (94)	The IP Networking Satellite Rx-Only enable feature is required for networking on Analog Voting Satellite and Voting Receiver and Simulcast configurations.	This SFE requires TBAS041(Defaulted) to be fitted before Analog Channel Group Satellite Enable function is available.
TBAS072-R0 - P25 Express6 RxOnly (94)	The Express6 Rx-Only feature allows a Receiver to connect to a Express6 Trunked configuration. The availability of this feature license is restricted.	This SFE requires TBAS050-R0 to be fitted before P25 Express6 Rx-Only will function.

Edition: 04

Tait P25 Base Station Licences

P25 (TB9400 Analog)

Item Code	Description	Rules of Engagment
TBAS041 - Analog Air Interface (94)	The Analog Air Interface feature allows the base station to transmit and receive Analog voice transmissions.	Fitted if Analog operation is required.
TBAS061 - Central Voter (94)	The central voter feature allows the network element to act as a central voter within its channel group. This feature also allows voice networking. All Voting Master configuration need this SFE.	This SFE requires TBAS041 to be fitted before Central Voter function is available. Must be fitted to all base stations in a Voting Master and Simulcast configuration.
TBAS062 - Simulcast (94)	The simulcast enable feature is required in base stations which have transmitters and belong to a Analog Voting Master or Voting Satellite and Simulcast network.	This SFE requires TBAS061 or TBAS071 to be fitted before Analog Simulcast Enable function is available.
TBAS071 - IP Newtworking Satellite (94)	The IP Networking Satellite enable feature is required for networking on Analog Voting Satellite and Voting Receiver and Simulcast configurations.	This SFE requires TBAS041(Defaulted) to be fitted before Analog Channel Group Satellite Enable function is available.

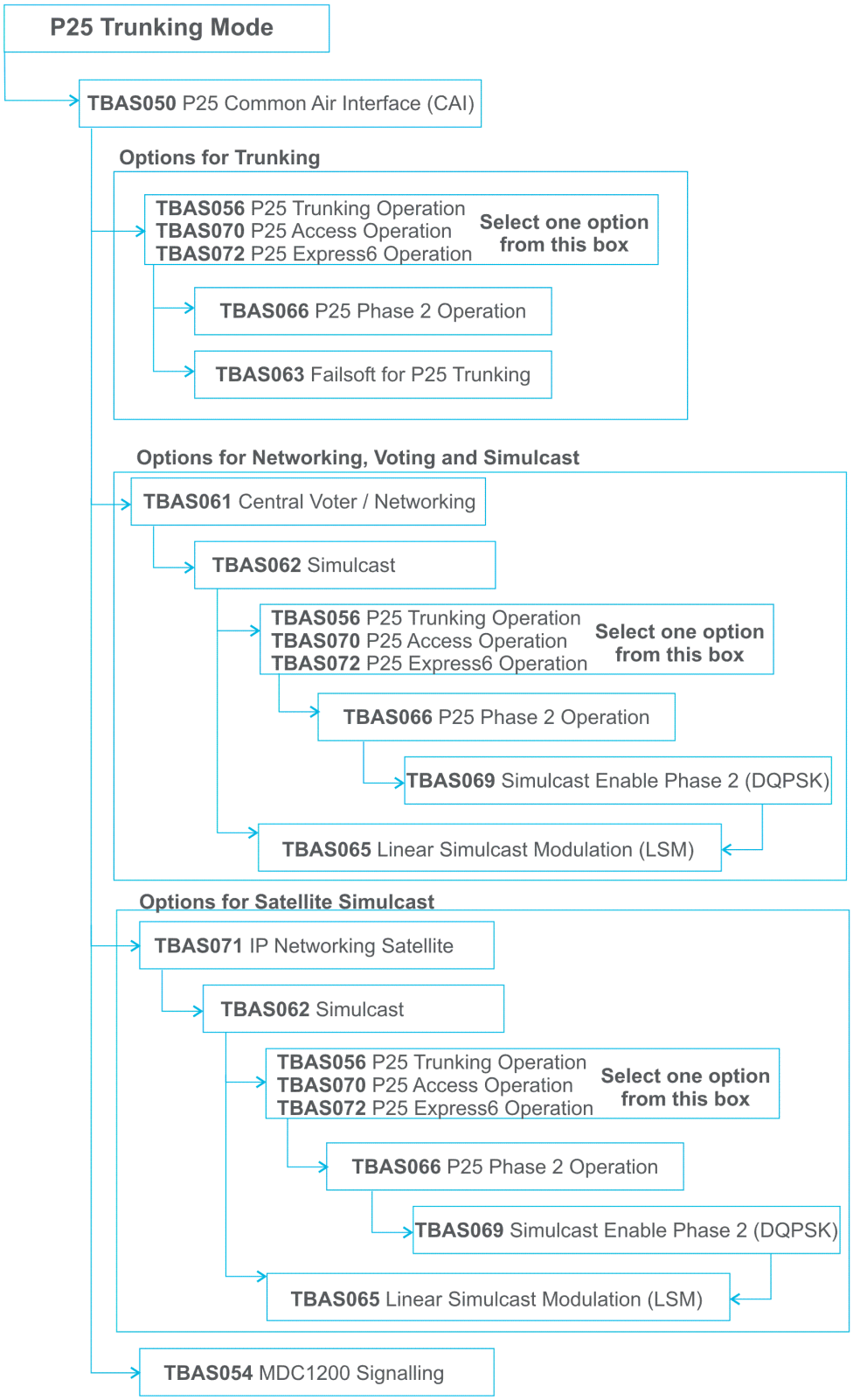
18 September 2018

Doc ID: 5182

Software maintenance and support is available on an annual renewal basis. Software maintenance ensures your software investment remains fully operational, high performing and current through updates that also include valuable new features – please contact your Tait Representative for further details

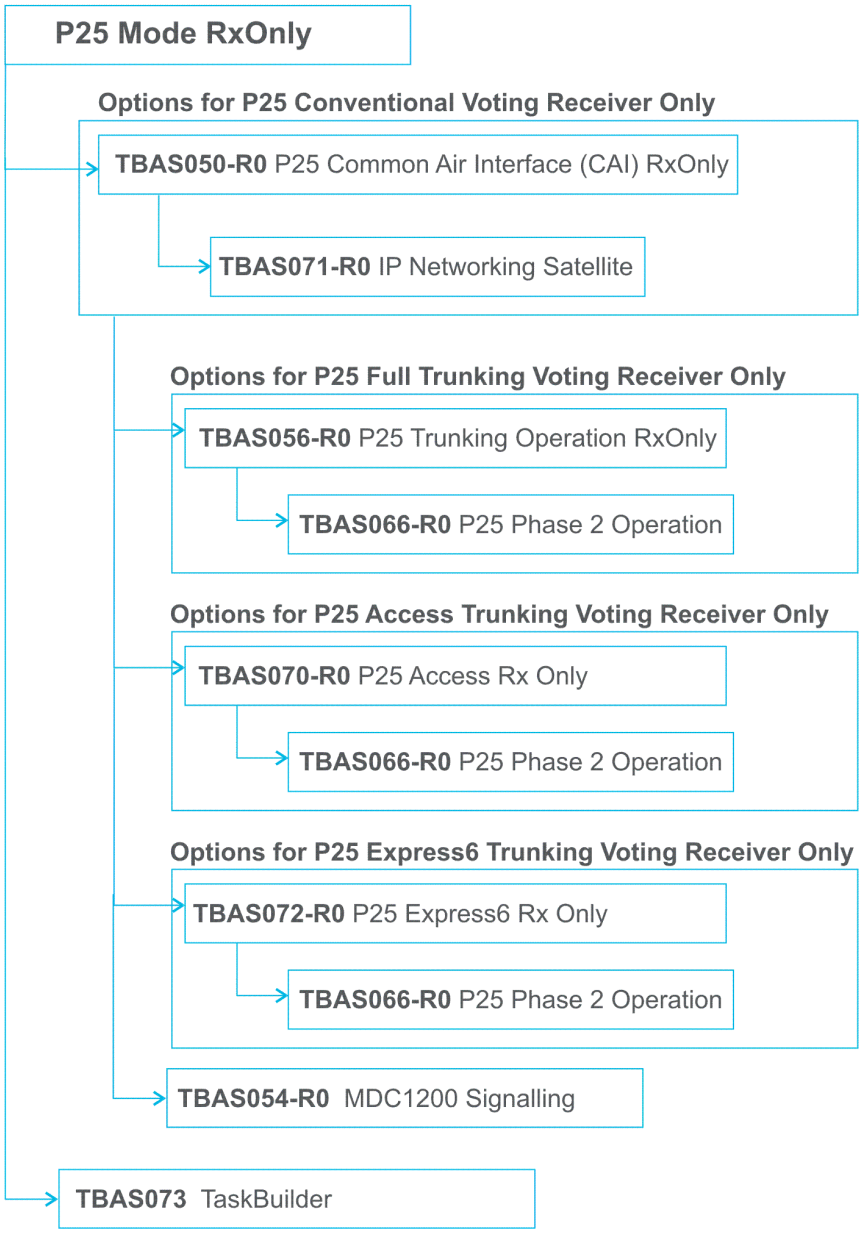
Software Licences - Digital Mode Trunking, Voting with Simulcast Enablers

All software enhancements are enabled on a per feature per reciter basis.



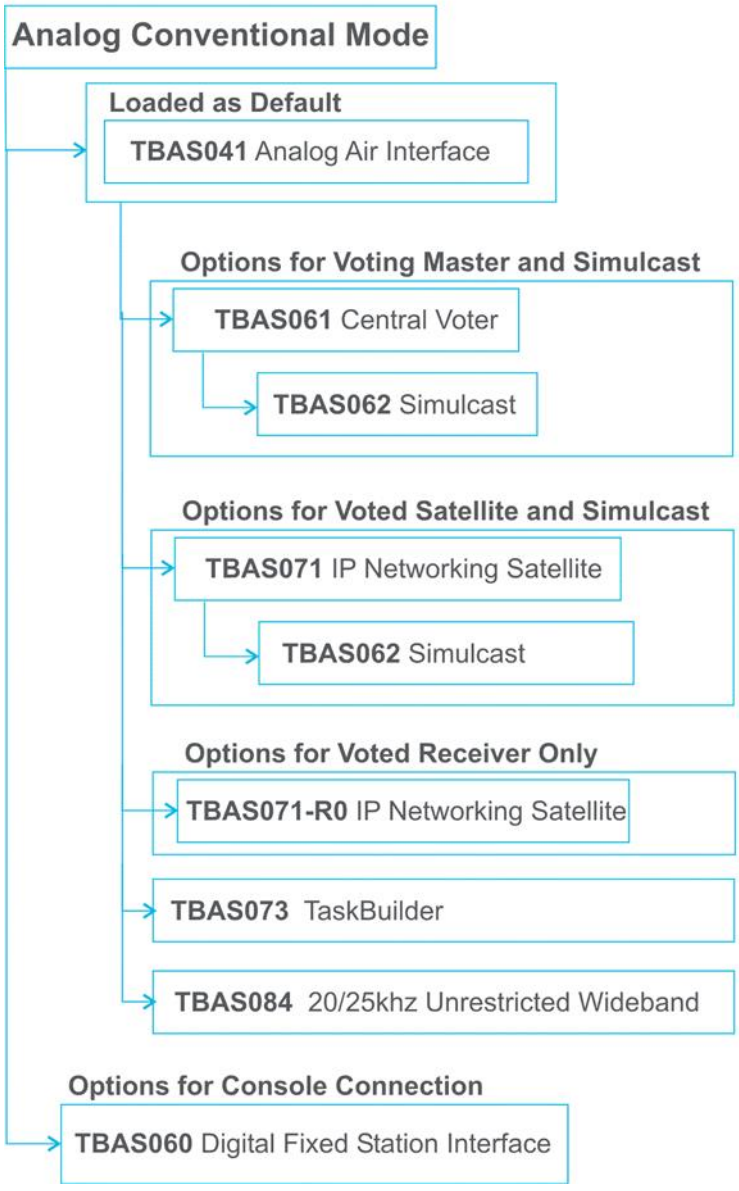
Software Licences - Digital Mode Rx Only for Conventional and Trunking Enablers

All software enhancements are enabled on a per feature per reciter basis.



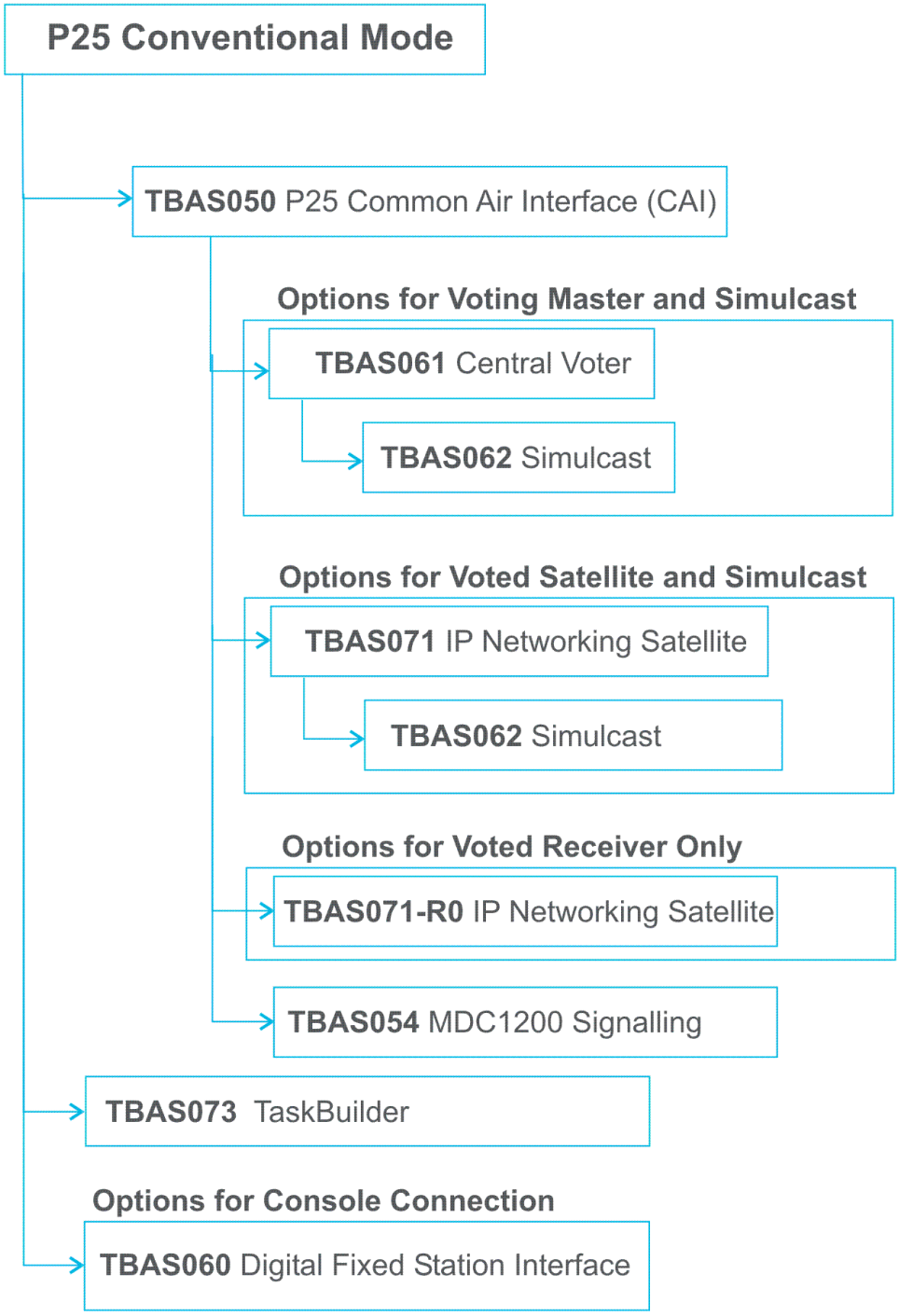
Software Licences - Analog Voting Mode with AS-IP Simulcast Enablers

All software enhancements are enabled on a per feature per reciter basis.



Software Licences - Digital Voting Mode with Simulcast Enablers

All software enhancements are enabled on a per feature per reciter basis.



Reciter (Receiver/Exciter)

Overview:

- A Reciter consists of a receiver and exciter, including RF, DSP & audio stages.

Note:

- Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

ITEM CODE	DESCRIPTION
T01-11103-BAAA	TB9400 Stocker Reciter 136-174M
T01-11103-JAAA	TB9400 Stocker Reciter 378-420M
T01-11103-KAAA	TB9400 Stocker Reciter 400-440M
T01-11103-LAAA	TB9400 Stocker Reciter 440-480M
T01-11103-MCAA	TB9400 Stocker Reciter 470-520M
T01-11103-NAAA	TB9400 Stocker Reciter 762-870M
T01-11104-BAAA	TB9400 Stocker 136-174M Receiver Only
T01-11104-JAAA	TB9400 Stocker 378-420M Receiver Only
T01-11104-KAAA	TB9400 Stocker 400-440M Receiver Only
T01-11104-LAAA	TB9400 Stocker 440-480M Receiver Only
T01-11104-MAAA	TB9400 Stocker 470-520M Receiver Only
T01-11104-NAAA	TB9400 Stocker 762-870M Receiver Only

Linear Power Amplifier (LPA) 100W

Overview:

- Paired with the TB9400 Reciter this PA is linearized to efficiently support complex modulation schemes by a Digital Cartesian Loop, efficiently supporting complex modulation schemes such as LSM and P25 Phase 2
- Remotely configurable and programmable
- 100% duty cycle @ 60°C (140°F)
- 2.5 millisecond key-up-time
- Programmable output power in 1W steps
- A limit of one 100W PA can be fitted into a TB9400 subrack

Note:

- Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

ITEM CODE	DESCRIPTION
T01-11121-BBBA	TB9400 Stocker Linear PA 136-174M 100W
T01-11121-JBAA	TB9400 Stocker Linear PA 378-420M 100W
T01-11121-KBAA	TB9400 Stocker Linear PA 440-480M 100W
T01-11121-LBAA	TB9400 Stocker Linear PA 440-480M 100W
T01-11121-MBAA	TB9400 Stocker Linear PA 470-520M 100W
T01-11121-NBAA	TB9400 Stocker Linear PA 378-470M 100W

Linear Power Amplifier (LPA) 50W

Overview:

- Paired with the TB9400 Reciter this PA is linearized to efficiently support complex modulation schemes by a Digital Cartesian Loop, efficiently supporting complex modulation schemes such as LSM and P25 Phase 2
- Remotely configurable and programmable
- 100% duty cycle @ 60°C (140°F)
- 2.5 millisecond key-up-time
- Programmable output power in 1W steps
- A limit of two 50W PA can be fitted into a TB9400 subrack

Note:

- Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

ITEM CODE	DESCRIPTION
T01-11121-BABA	TB9400 Stocker Linear PA 136-174M 50W
T01-11121-JAAA	TB9400 Stocker Linear PA 400-440M 50W
T01-11121-KAAA	TB9400 Stocker Linear PA 440-480M 50W
T01-11121-LAAA	TB9400 Stocker Linear PA 470-520M 50W
T01-11121-MAAA	TB9400 Stocker Linear PA 378-470M 50W
T01-11121-NAAA	TB9400 Stocker Linear PA 762-870M 50W

Power Management Units (PMU)

Standard Features for Power Management Units include:

- Seamless ACDC change over
- DC options are 12, 24, 48VDC
- AC, DC or ACDC supply

Standard Features for Auxiliary power supply include:

- The Auxiliary power supply is intended to power site equipment
- Floating output may be negatively or positively earthed
- Can be configured to be on all of the time (to supply external equipment) or only while mains is available

Note:

- Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.
- Standby and Auxiliary Power Supplies are included as standard

Power Management Units (PMU) - AC

Standard Package Includes:

- 88 to 264V input with power factor correction
- Sufficient output power to drive 1 x 100W transmitter
- Remotely controllable and programmable
- Built-in alarms and diagnostics

ITEM CODE	DESCRIPTION
T01-11140-AAAA	TB9000 Stocker Power Management Unit TD440-AC Aux12/24/48

Power Management Units (PMU) – DC

Standard Package Includes:

- Operates from 12, 24 or 48VDC supply
- Input supply can be negatively or positively earthed
- Sufficient output power to drive 1 x 100W transmitter
- Remotely controllable and programmable
- Built-in alarms and diagnostics

Note:

- Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

ITEM CODE	DESCRIPTION
TB9090-0000-0000-C000-10	TB8000/9000 Spare Power Management Unit DC12 aux12
TB9090-0000-0000-D000-10	TB8000/9000 Spare Power Management Unit DC12 aux24
TB9090-0000-0000-R000-10	TB8000/9000 Spare Power Management Unit DC12 aux48
TB9090-0000-0000-E000-10	TB8000/9000 Spare Power Management Unit DC24 aux12
TB9090-0000-0000-F000-10	TB8000/9000 Spare Power Management Unit DC24 aux24
TB9090-0000-0000-S000-10	TB8000/9000 Spare Power Management Unit DC24 aux48
TB9090-0000-0000-G000-10	TB8000/9000 Spare Power Management Unit DC48 aux12
TB9090-0000-0000-H000-10	TB8000/9000 Spare Power Management Unit DC48 aux24
TB9090-0000-0000-T000-10	TB8000/9000 Spare Power Management Unit DC48 aux48
Replacement PMU's Coming Soon	
T01-11140-BDAA	TB9000 Stocker Power Management Unit TD440-DC48 Aux12/24/48

Power Management Units (PMU) – ACDC

Standard Package Includes:

- Seamless and automatic switching from AC to DC
- AC operates 88 to 264V input with power factor correction
- DC operates from 12, 24 or 48VDC supply
- DC input supply can be negatively or positively earthed
- Sufficient output power to drive 1 x 100W transmitter
- Remotely controllable and programmable
- Built-in alarms and diagnostics

Note:

- Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

ITEM CODE	DESCRIPTION
TB9090-0000-0000-J000-10	TB8000/9000 Spare Power Management Unit ACDC12 aux12
TB9090-0000-0000-K000-10	TB8000/9000 Spare Power Management Unit ACDC12 aux24
TB9090-0000-0000-U000-10	TB8000/9000 Spare Power Management Unit ACDC12 aux48
TB9090-0000-0000-L000-10	TB8000/9000 Spare Power Management Unit ACDC24 aux12
TB9090-0000-0000-M000-10	TB8000/9000 Spare Power Management Unit ACDC24 aux24
TB9090-0000-0000-V000-10	TB8000/9000 Spare Power Management Unit ACDC24 aux48
TB9090-0000-0000-N000-10	TB8000/9000 Spare Power Management Unit ACDC48 aux12
TB9090-0000-0000-P000-10	TB8000/9000 Spare Power Management Unit ACDC48 aux24
TB9090-0000-0000-W000-10	TB8000/9000 Spare Power Management Unit ACDC48 aux48
Replacement PMUs Coming Soon	
T01-11140-ABAA	TB9000 Stocker Power Management Unit TD440-AC/DC12 Aux12/24/48
T01-11140-ACAA	TB9000 Stocker Power Management Unit TD440-AC/DC24 Aux12/24/48
T01-11140-ADAA	TB9000 Stocker Power Management Unit TD440-AC/DC48 Aux12/24/48

Accessories

ITEM CODE	DESCRIPTION
Support Bracket	
TBAA03-13	TB8000/9000 Auxiliary Support Bracket
Handle	
TBAA03-16	TB8000/9000 Carrying Handles
Front Panel Assembly	
T01-01110-AAAA	TB9400 P25 Front Panel Assembly 1000W
T01-01110-BAAA	TB9400 P25 Front Panel Assembly 50W
T01-01110-DAAA	TB9400 P25 Front Panel Assembly Receive Only with PMU
Power Cords	
T952-310	Mains Power Lead ANZ-IEC
T952-320	Mains Power Lead UK-IEC
T952-330	Mains Power Lead EUR-IEC
T952-340	Mains Power Lead US/CAN IEC
Channel Upgrade Kit	
T01-01150-0003	Single Channel Upgrade for TB9400 (Requires appropriate Reciter and PA to be ordered separately)
Isolation Adaptor	
TBC101A	TB73/94 E&M Isolation Adaptor
Relay Coax Assembly	
TBCA03-10	Relay coax assembly