

# C-Band Weather Radar Radio Module

GKP-2794

## User's Manual

2020 July



# PREFACE

## BEFORE OPERATION

### ■ GRAPHIC INDICATION

Various graphic indications are included in this manual and are shown on the equipment so that it can be operated safely and correctly and prevent any danger to the operator and/or to other persons and any damage to property during operation. Such indications and their meanings are as follows.

Understand them before reading this manual.

	<b>WARNING</b>	This indication is shown where it indicates that any person will be in danger of seriously injured or loss of life if this indication is neglected and the equipment are not operated correctly.
	<b>CAUTION</b>	This indication is shown where it indicates that any person will be in danger of seriously injured or loss of life if this indication is neglected and the equipment are not operated correctly.

### ■ EXAMPLES OF GRAPHIC INDICATION



The  $\Delta$  mark represents CAUTION (including DANGER and WARNING).

Detailed contents of CAUTION ("Electric Shock" in the example on the left.) is shown in the mark.



The  $\ominus$  mark represents prohibition.

Detailed contents of the prohibited action ("Disassembling Prohibited" in the example on the left.) is shown in the mark.



The  $\bullet$  mark represents instruction.

Detailed contents of the instruction ("Disconnect the power plug" in the example on the left.) is shown in the mark.

•PRECAUTIONS



## WARNING



Do not touch TRX Unit.

TRX Unit is a moving part, and it may cause injury.

For internal inspection and repair work of equipment components, consult with our branch office, branch shop, sales office, or our distributor in your district.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This device complies with Part 90 of the FCC rules.

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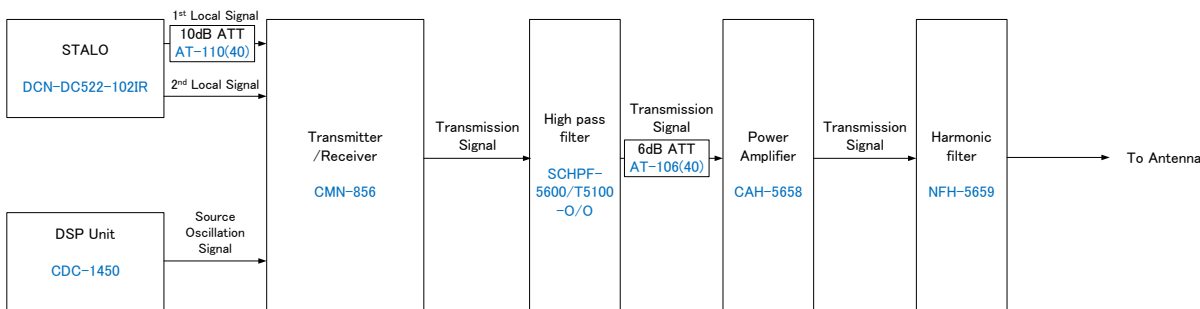
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1.General

GKP-2794 is solid-state radio module of weather radar. It is composed with STALO, DSP Unit, TRX Unit Module, and PA Unit. The source oscillation signal is generated in Signal Processor. TRX Unit up-convert the source oscillation to the transmission frequency by mixing it with the local signals generated by STALO, and amplifies it at the PA Unit.

Since this is solid-state type, it does not require either pre-heat or tune-up. Also, it is possible to keep stable transmission and low power consumption for longer period of time.

Details of the components are shown in the next page.

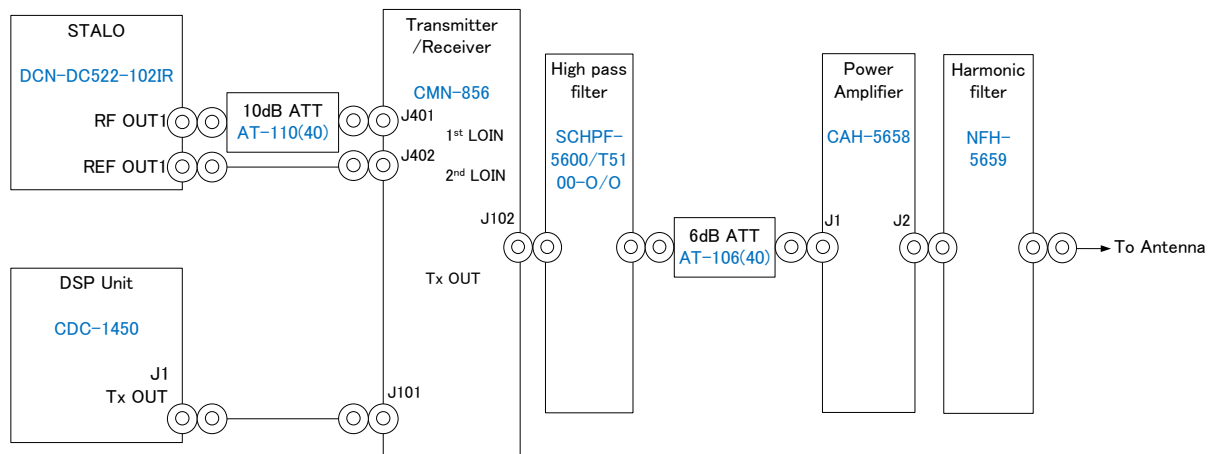


Block Diagram of transmission

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2. Specifications

2.1 Interface



	No	Port Name	Detail	Spec.	Remarks
STALO					
		RF OUT1	1st Local Signal Output	SMA-J	
		REF OUT1	2nd Local Signal Output	SMA-J	
Signal Processor					
	J1	TX OUT	IF Signal Output	SMA-J	
TRX Unit					
	J101	TX IF	TX IF Signal Input	SMA-J	
	J102	TX OUT	TX RF Signal Output	SMA-J	
	J401	1st LO IN	1stLO Input	SMA-J	
	J402	2nd LO IN	2ndLO Input	SMA-J	
High Pass Filter					
				SMA-J	
PA Unit					
	J1	RX TX	RF input signal	TNC-J	
	J2	TX OUT	RF output signal	TNC-P	
Harmonic Filter					

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2.2 Performance

No	Item	Specification	Remarks
1	Transmission frequency	5600 MHz, 5800 MHz	
2	TRX Unit IF frequency	60MHz	
3	Duty	10% or less	
4	OBW	8MHz or less	
5	Transmit RF output	400 W (Peak)	
6	Operating temperature range	0°C~+60°C	
7	Storage temperature range	0°C~+60°C	
8	Power Supply	DC+12V: DSP Unit DC+12V: STALO DC+12V: TRX Unit DC+48V: PA Unit	