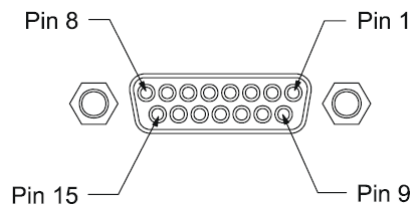
	<h1>Technical Bulletin</h1>	Document SKB 0033	Page 1 / 2
	Matching Interface Pin Description of Variomatch and Integro Generators	Rev. date 30-Oct-06	Rev. A 04

Product: Variomatch Matching Networks and Integro RF Generators
Subject: Matching Interface Pin Description


Each Variomatch has a Matching Interface that allows full communication between the matching network and a Dressler RF generator, such as the CESAR, LFGS, HPG, and DTG (or other electrically compatible controllers). The matching interface is a 15-pin, subminiature-D, female connector.

The following figure illustrates the connector, and the table describes each pin.



Note: This interface is will not work with other controllers unless they are electrically compatible.

Pin	Name	Signal Type	Level	Description
1	Ground	GND	Cabinet ground = electronic ground	Connect to the shield of the cable (for example RC cable)
2	Decrease C_{Load}	Digital Input	+ 15 V pull-up	Connect this input to ground to decrease the value of C_{Load} . Interrupt the connection to ground when the desired position for C_{Load} is reached.
3	Increase C_{Load}	Digital Input	+ 15 V pull-up	Connect this input to ground to increase the value of C_{Load} . Interrupt the connection to ground when the desired position for C_{Load} is reached.
4	Decrease C_{Tune}	Digital Input	+ 15 V pull-up	Connect this input to ground to decrease the value of C_{Tune} . Interrupt the connection to ground when the desired position for C_{Tune} is reached.
5	Increase C_{Tune}	Digital Input	+ 15 V pull-up	Connect this input to ground to increase the value of C_{Tune} . Interrupt the connection to ground when the desired position for C_{Tune} is reached.
6	Ground	GND	Cabinet ground = electronic ground	Reference ground
7	-	nc		no connection
8	Manual Mode	Digital Input	+ 15 V pull-up	Connect this input to ground to switch the matching network into manual mode.
9	Ground	GND	Cabinet ground = electronic ground	Reference ground
10	+5 V Supply	Supply Output	+5 V DC	This +5VDC output allows to supply external loads at a maximum current of 100 mA
11	+15 V Supply	Supply Output	+15 V DC	This +15VDC output allows to supply external loads at a maximum current of 100 mA
12	DC-Selfbias monitor	Analog Output	0 V to 10 V	This pin reads out the monitor voltage of the scale d down DC-bias voltage. (The default scaling factor is 400:1. 4kV DC-bias voltage is equal to 10V monitor voltage. <u>Note:</u> In some versions of the VM the scaling ratio can be changed.)

	<h1>Technical Bulletin</h1>	Document SKB 0033	Page 2 / 2
	<h2>Matching Interface Pin Description of Variomatch and Integro Generators</h2>	Rev. date 30-Oct-06	Rev. A 04

Pin	Name	Signal Type	Level	Description
13	C _{Tune} Position monitor	Analog Output	0 V to 10 V	The voltage at this output is proportional to the position of the capacitor C _{Tune} . The minimum voltage is ~0.3V representing the minimum capacity of C _{Tune} . The maximum voltage is ~ 9.7V representing the maximum capacity of C _{Tune} .
14	C _{Load} Position monitor	Analog Output	0 V to 10 V	The voltage at this output is proportional to the position of the capacitor C _{Load} . The minimum voltage is ~0.3V representing the minimum capacity of C _{Load} . The maximum voltage is ~ 9.7V representing the maximum capacity of C _{Load} .
15	Matching activity status	Digital Output	Open collector	This open collector output is pulled to ground when the matching network is active and turning the motor(s). This level is floating when the matching does not tune (Capacitors static). (Rating: 30V max, 20mA max)

This document may contain information that is confidential and proprietary information of Advanced Energy Industries. The dissemination, distribution or copying of this document is strictly prohibited without the express written consent of Advanced Energy Industries GmbH. All technical information contained is subject to changes without prior notice. For recent updates please contact Customer Service.