

Á Á Á ÜBÜ OT HEE

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JULY 2004

RS  
**ROHDE & SCHWARZ**

100

R&S®AM300

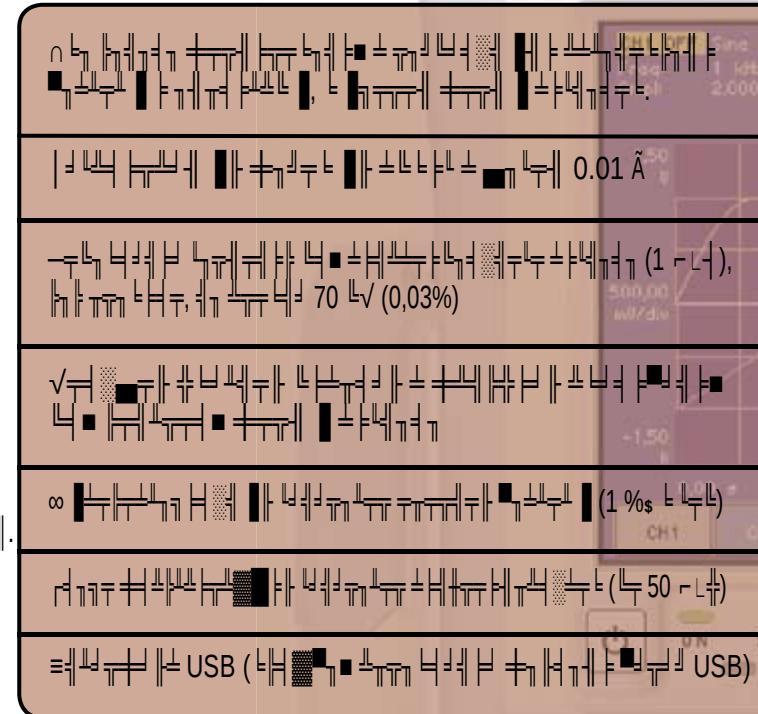
R&S®AM300

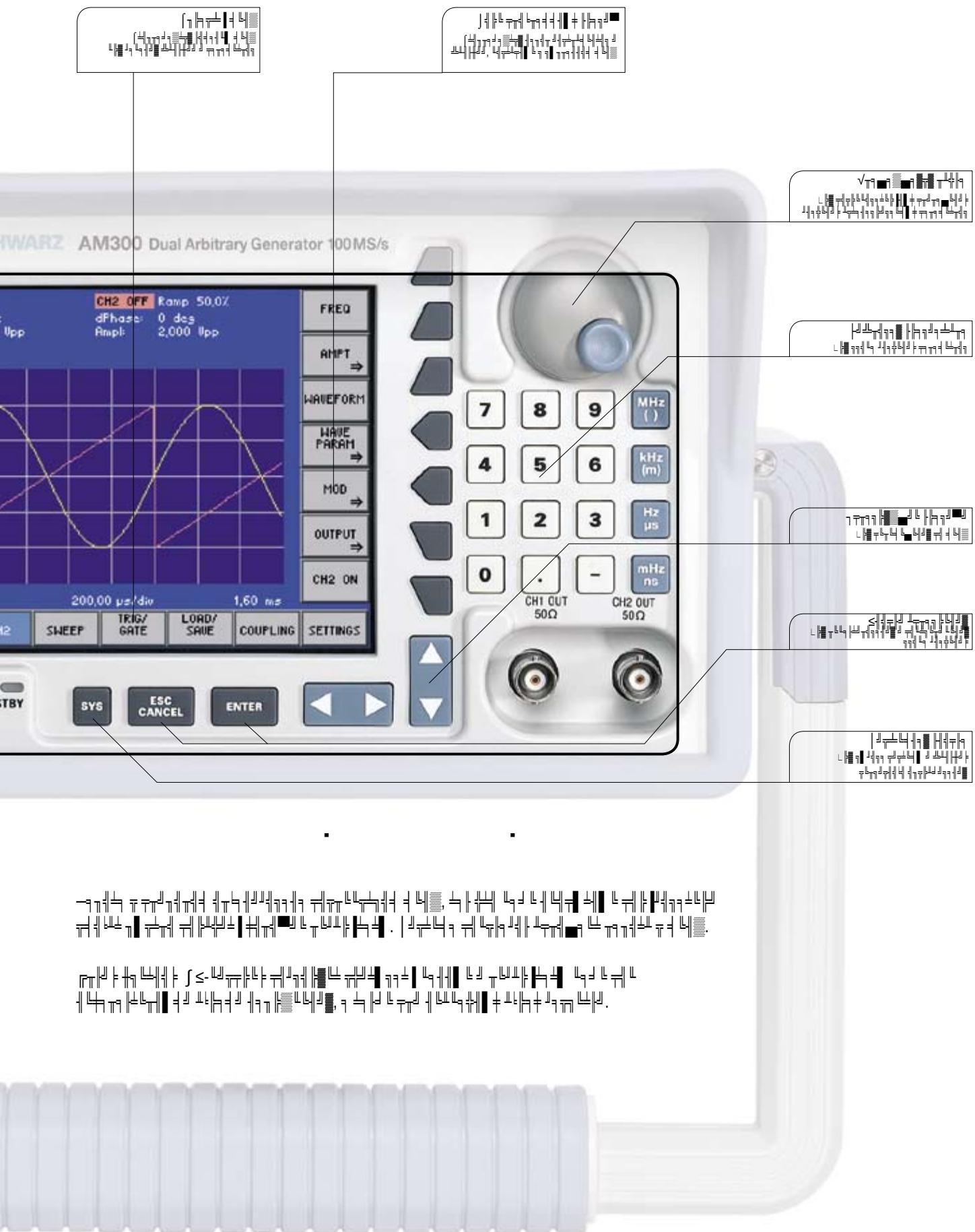
Waveform Composer,

I/Q

RF R&S®SM300.

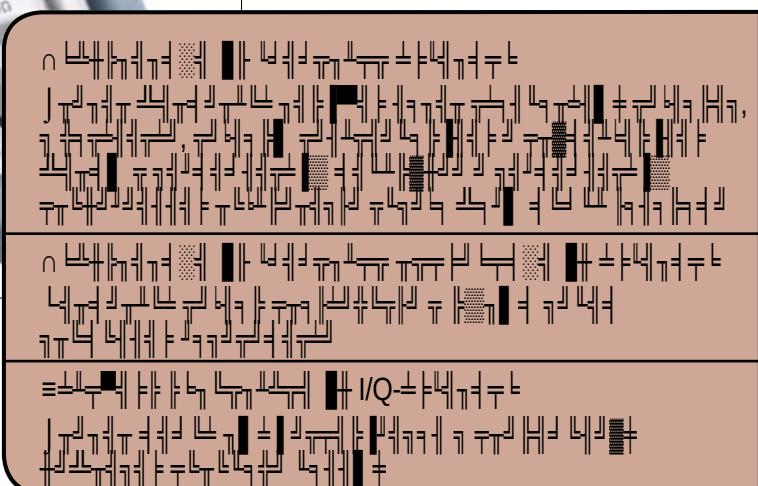
35	50
500	1000
ΣΔ	ΔΔ
100	16
10	Wpp
20	9999
≥	14
≤	10
65535	65535







R&S<sup>®</sup> AM300 :  
: ,  
: .

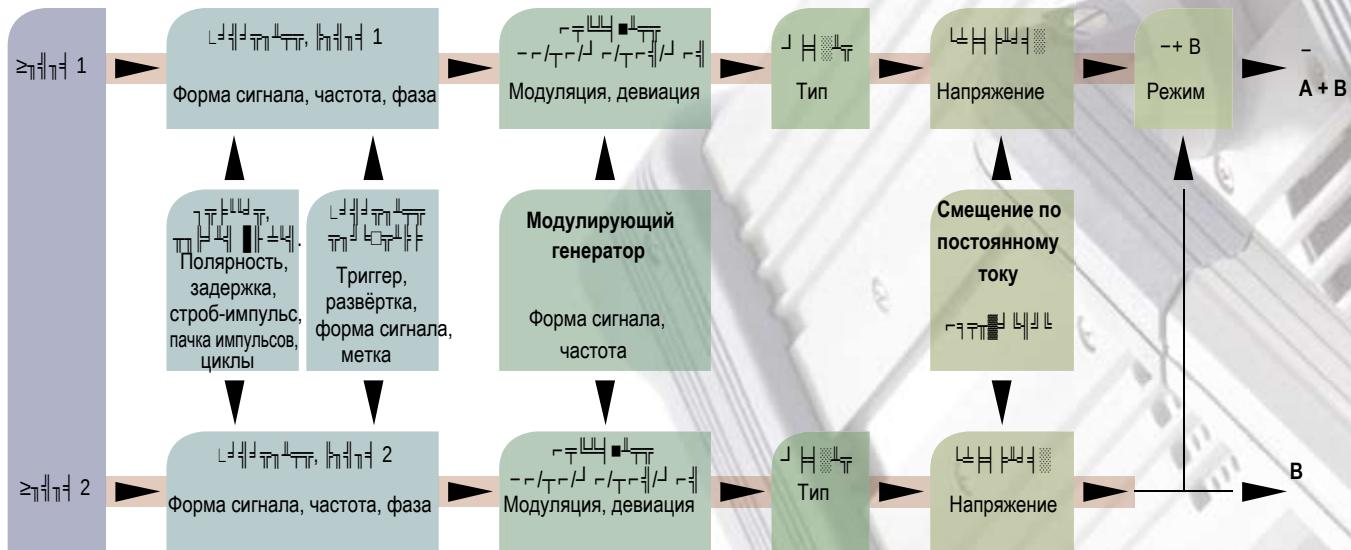


'F/ G<sup>5</sup> 5 A' \$\$



R&S® AM300





לְפָנֶיךָ יְהוָה אֱלֹהֵינוּ וְאֶת־בְּנֵינוּ



A decorative horizontal bar featuring a repeating pattern of small squares and rectangles in various colors including black, white, grey, and light blue.

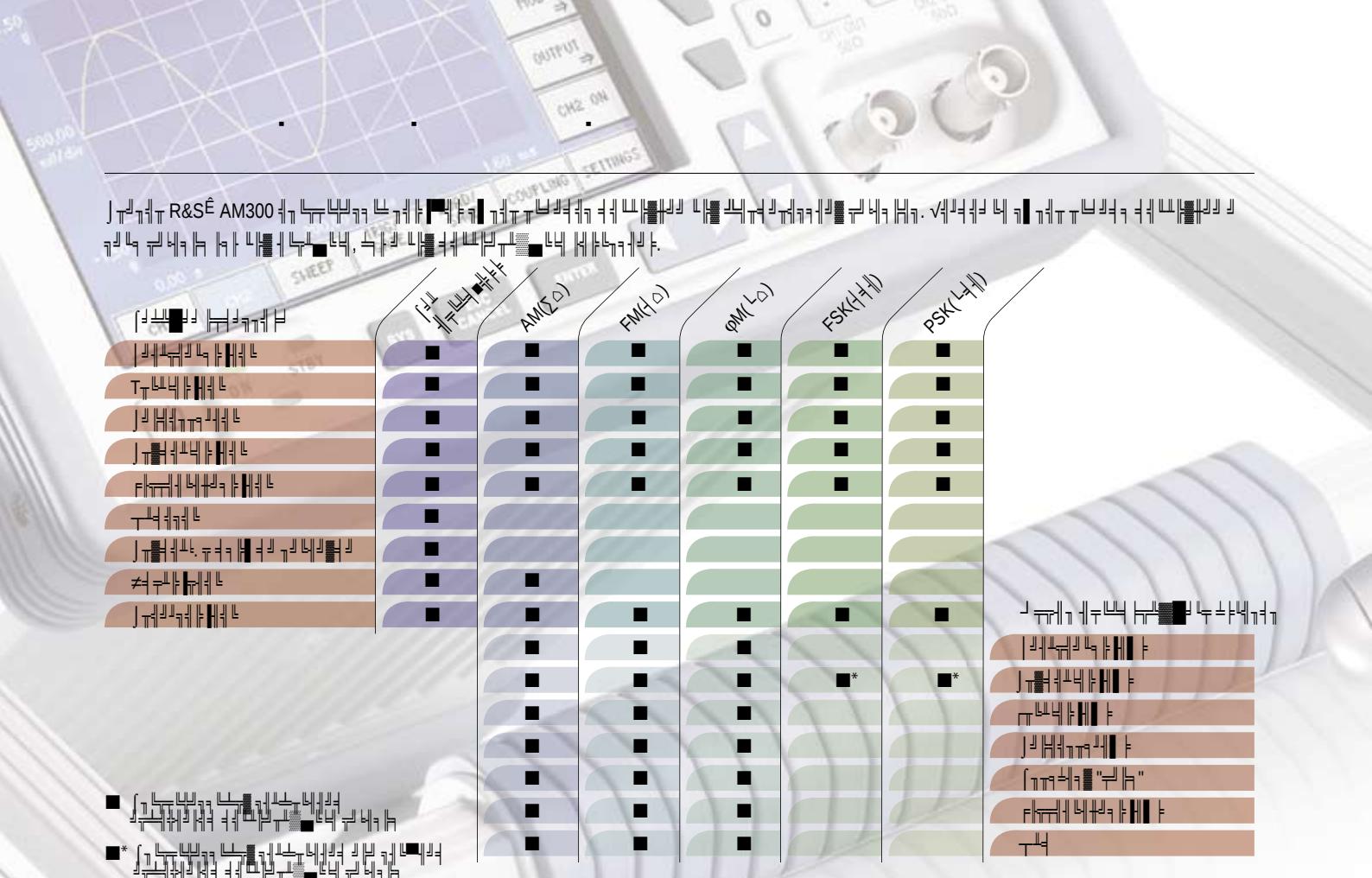
- ◆  **የኢትዮጵያ ከተማ ተቋማ ተስፋዣ ተስፋዣ ተስፋዣ**
  - ◆  **የኢትዮጵያ ከተማ ተቋማ ተስፋዣ ተስፋዣ ተስፋዣ**
  - ◆  **የኢትዮጵያ ከተማ ተቋማ ተስፋዣ ተስፋዣ ተስፋዣ**
  - ◆  **የኢትዮጵያ ከተማ ተቋማ ተስፋዣ ተስፋዣ ተስፋዣ**

A horizontal strip of cuneiform script from a clay tablet, showing several lines of text in a rectangular box.

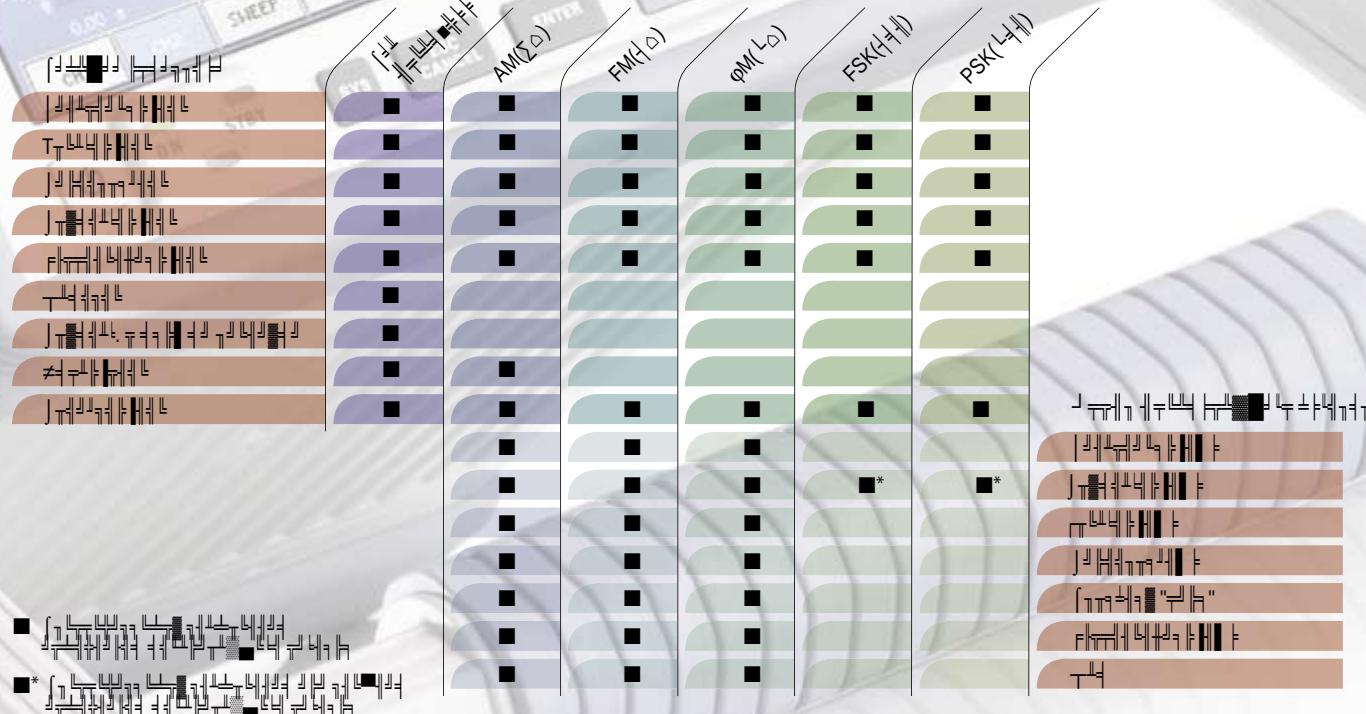
- ◆ ||| Matlab || Mathcad |

- ◆ የዚህ በቻ ማረጋገጫ እንደሆነ ተስፋል ተስፋል ተስፋል ተስፋል ተስፋል ተስፋል ተስፋል
- ◆ የዚህ በቻ ማረጋገጫ እንደሆነ ተስፋል ተስፋል ተስፋል ተስፋል ተስፋል ተስፋል ተስፋል
- ◆ የዚህ በቻ ማረጋገጫ እንደሆነ ተስፋል ተስፋል ተስፋል ተስፋል ተስፋል ተስፋል ተስፋል

- ◆ በኋላ ስራ ከሚሸጠው የR&S ስርዓት የAM300 መሆኑን ተረጋግጧል፡፡
- ◆ ይህንን የሚከተሉት የR&S ስርዓት የAM300 መሆኑን ተረጋግጧል፡፡



የኢትዮጵያ R&S™ AM300 ከተማዎች በተመዘገበ የሚከተሉ ስምምነት የሚያስፈልግ ይችላል.



## F/ G\* 5 A' \$\$

1. የሚከተሉ መሰራት
  2. የሚከተሉ መሰራት
- ◆  $f_1 = f_2$
  - ◆ ጥሩ የሚከተሉ መሰራት የሚያስፈልግ ይችላል
  - ◆  $\sqrt{f_1 \cdot f_2} = \sqrt{f_1^2 + f_2^2}$

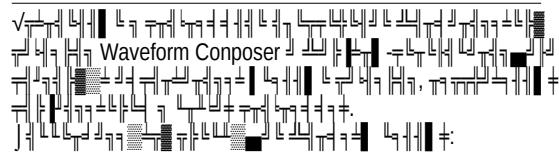
'K Uj Yzfa '7 cbdcgYf'

'Fc\ XY/ GW k Ufn

የመሰራት በመሆኑ ተደርጓል ተደርጓል ተደርጓል Waveform Composer በመሆኑ ተደርጓል  
የመሰራት በመሆኑ ተደርጓል ተደርጓል ተደርጓል ተደርጓል ተደርጓል ተደርጓል ተደርጓል ተደርጓል  
የመሰራት በመሆኑ ተደርጓል ተደርጓል ተደርጓል ተደርጓል ተደርጓል ተደርጓል ተደርጓል

- ◆ የመሰራት በመሆኑ ተደርጓል ተደርጓል ተደርጓል
- ◆ - ተደርጓል ተደርጓል ተደርጓል
- ◆ የመሰራት በመሆኑ ተደርጓል ተደርጓል ተደርጓል
- ◆ የመሰራት በመሆኑ ተደርጓል ተደርጓል





ADS ASCII Single	*.asg	LeCroy	*.trc
ADS ASCII Mixed	*.asg	Mathcad Single	*.i, *.q
AM300 Binary	*.amb	Mathcad Mixed	*.dat
AM300 ASCII	*.ama	Matlab ASCII Single	*.dat
AWG 2000	*.wfm	Matlab ASCII Mixed	*.dat
COSSAP Single	*.i, *.q	Matlab Binary Single	*.mat
COSSAP Mixed	*.dat	Matlab Binary Mixed	*.mat
DAB-K1	*.sym	SPW ASCII Single	*.ascsig
DaDisp Single	*.i, *.q	SPW ASCII Mixed	*.ascsig
DaDisp Mixed	*.dsp	SPW Binary Mixed	*.sig
IQSIM	*.i, *.q	Uint16	*.i, *.q
IQW Mixed	*.iqw	WAV	*.wav

## I G6 !

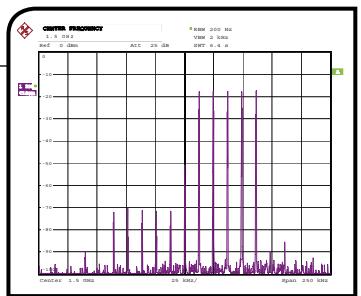
Waveform Composer, USB-  
USB-  
256  
1000



Dual-Channel Arbitrary/Function Generator R&S®AM300

## F/ G<sup>a</sup> 5 A' \$\$

R&S EAM300 **5 A' 500 MS/s** USB Dual-Arbitrary Generator 300 MHz is the first arbitrary waveform generator based on a high-resolution 14-bit DAC. It offers a resolution of up to 12 bits at 1 GSa/s. The R&S EAM300 is a modular instrument consisting of a central unit with the generator and a computer with a monitor and keyboard. The monitor displays the signal waveform, frequency, amplitude, and other parameters. The computer controls the generator via a USB interface. The R&S EAM300 is used for generating complex waveforms for various applications such as communications, test and measurement, and research.



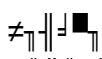
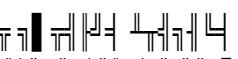
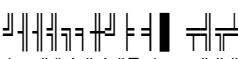
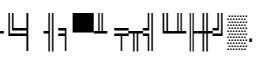
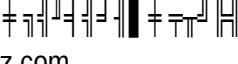
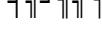
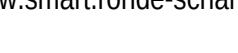
## I G6

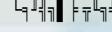
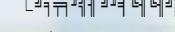
Rohde & Schwarz **G6** **100 MHz** **AM300** **500 MS/s** **Dual-Arbitrary Generator** **300 MHz**. The **AM300** is a high-performance arbitrary waveform generator designed for a wide range of applications. It features a high-resolution 14-bit DAC and a powerful processing unit. The **AM300** can generate complex waveforms with high accuracy and low distortion. It also includes a built-in digital-to-analog converter (DAC) for high-fidelity signal generation. The **AM300** is a modular instrument consisting of a central unit with the generator and a computer with a monitor and keyboard. The monitor displays the signal waveform, frequency, amplitude, and other parameters. The computer controls the generator via a USB interface. The **AM300** is used for generating complex waveforms for various applications such as communications, test and measurement, and research.

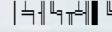
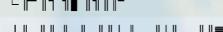
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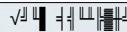


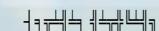
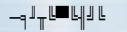
Rohde & Schwarz **G6** **100 MHz** **AM300** **500 MS/s** **Dual-Arbitrary Generator** **300 MHz**. The **AM300** is a high-performance arbitrary waveform generator designed for a wide range of applications. It features a high-resolution 14-bit DAC and a powerful processing unit. The **AM300** can generate complex waveforms with high accuracy and low distortion. It also includes a built-in digital-to-analog converter (DAC) for high-fidelity signal generation. The **AM300** is a modular instrument consisting of a central unit with the generator and a computer with a monitor and keyboard. The monitor displays the signal waveform, frequency, amplitude, and other parameters. The computer controls the generator via a USB interface. The **AM300** is used for generating complex waveforms for various applications such as communications, test and measurement, and research.

 :       
       
     

	    	2   -180 °  +180 °  0.01 °  CH1, CH2, CH1+CH2	

	   	             16  262144 (256k)            14 	

		AM ( $\Sigma \Delta$ ), FM ( $\Delta \Delta$ ), φM ( $L \Delta$ ), FSK ( $\Delta \Delta$ ), PSK ( $L \Delta$ )	

	       	 10  35   10  500   10  50   35   10  16.667   max. 6.25  (16  )  10  100   10 	

	<p><math>\sqrt{\text{AM}} \leq 50 \text{ } \mu\text{s}</math></p> <p><math>\text{f}_{\text{c}}</math> to <math>\text{f}_{\text{r}}</math></p> <p><math>\text{f}_{\text{c}} = 10 \text{ } \mu\text{s}</math></p> <p><math>\text{f}_{\text{r}} = 10 \text{ } \mu\text{s}</math></p> <p><math>\text{f}_{\text{c}} = 30 \text{ } \mu\text{s}</math></p> <p><math>\text{f}_{\text{r}} = 35 \text{ } \mu\text{s}</math></p>	<p><math>\frac{1}{2} \times 10 \sqrt{V_{\text{pp}}} = 5 \sqrt{V_{\text{pp}}}</math></p> <p><math>0.1 \sqrt{4 \times 10} = 0.2 \text{ dBm}</math></p> <p>0%</p> <p><math>0.1 \text{ dBm} = 0.1 \text{ dB}</math></p> <p><math>0.25 \text{ dBm} = 0.25 \text{ dB}</math></p>	
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	$\text{f}_{\text{c}}$	$\text{f}_{\text{r}}$
$\text{f}_{\text{c}} = 10 \text{ } \mu\text{s}$	$<3 \sqrt{V_{\text{pp}}}$	$0.3 \sqrt{V_{\text{pp}}}$
$20 \text{ } \mu\text{s} < \text{f} < 1 \text{ ms}$	$<65 \text{ dBc}$	$<60 \text{ dBc}$
$1 \text{ ms} < \text{f} < 5 \text{ ms}$	$<55 \text{ dBc}$	$<55 \text{ dBc}$
$5 \text{ ms} < \text{f} < 35 \text{ ms}$	$<40 \text{ dBc}$	$<35 \text{ dBc}$
$\text{f}_{\text{r}} = 10 \text{ } \mu\text{s}$	$<60 \text{ dBc}$	$<70 \text{ dBc}$
$5 \text{ ms} < \text{f} < 25 \text{ ms}$	$<45 \text{ dBc}$	$<55 \text{ dBc}$
$25 \text{ ms} < \text{f} < 35 \text{ ms}$	$<40 \text{ dBc}$	$<50 \text{ dBc}$
$\text{SSB} (\text{f}_{\text{c}} = 10 \text{ } \mu\text{s}, \text{f}_{\text{r}} = 10 \text{ } \mu\text{s})$		
$10 \text{ ms}$	$<118 \text{ dBc}$	$<118 \text{ dBc}$
$35 \text{ ms}$	$<117 \text{ dBc}$	$<117 \text{ dBc}$

$\text{f}_{\text{c}} = 10 \text{ } \mu\text{s}$	$\text{f}_{\text{r}} = 10 \text{ } \mu\text{s}$	
$500 \text{ } \mu\text{s}$	$\pm 1\% \text{ } V_{\text{pp}}$	$99\% (\text{f}_{\text{c}} = 10 \text{ } \mu\text{s})$
$10 \text{ } \mu\text{s} < \text{f} < 50 \text{ ms}$		$50\% (\text{f}_{\text{c}} = 10 \text{ } \mu\text{s})$
$\text{f}_{\text{c}} = 10 \text{ } \mu\text{s}$	$<10 \text{ } \mu\text{s}$	
$10 \text{ ms} < \text{f} < 10 \text{ ms}$	$<5 \text{ } \mu\text{s}$	
$\text{f}_{\text{c}} = 10 \text{ ms}$	$<5\%$	
$\text{f}_{\text{c}} = 10 \text{ ms}$	$\pm 70 \text{ } \mu\text{s}$	$9999 \text{ } \mu\text{s}$
$\text{f}_{\text{c}} = 10 \text{ ms}$	$\pm 20 \text{ } \mu\text{s}$	$9999 \text{ } \mu\text{s}$
$\text{f}_{\text{c}} = 10 \text{ ms}$	$<10 \text{ } \mu\text{s}$	
$\text{f}_{\text{c}} = 10 \text{ ms}$	$<5\%$	
$\text{f}_{\text{c}} = 10 \text{ ms}$	$\pm 0\% \text{ } V_{\text{pp}}$	$100\% \text{ } V_{\text{pp}}$
$\text{f}_{\text{c}} = 10 \text{ ms}$	$0.1\% (\text{f} < 10 \text{ } \mu\text{s})$	
$\text{f}_{\text{c}} = 10 \text{ ms}$	$\pm 10 \text{ } \mu\text{s}$	$\pm 10 \text{ } \mu\text{s}$
$\text{f}_{\text{c}} = 10 \text{ ms}$	$<10 \text{ } \mu\text{s}$	
$\text{f}_{\text{c}} = 10 \text{ ms}$	$0.1\% (\text{f} < 10 \text{ } \mu\text{s})$	
$\text{f}_{\text{c}} = 10 \text{ ms}$	$16 \text{ } \mu\text{s} (\text{f}_{\text{c}} = 10 \text{ ms}, 256 \text{ } \mu\text{s})$	$16 \text{ } \mu\text{s} (\text{f}_{\text{c}} = 10 \text{ ms}, 256 \text{ } \mu\text{s})$

<p><math>\overline{\text{---}} \text{---} \text{---}</math> (50 Hz)</p> <p>0.5V + 0.5V = 0.5V</p> <p>0.1% + 0.2% = 0.3%</p> <p>50 Hz</p> <p>35 dBM, 75 dBM</p> <p>-9 dBm 9.4 dBm</p> <p>50 Hz</p> <p>2 V (V<sub>pp</sub>)</p>
---

<b>&amp;</b>	
AM (-dBFS dBc)	±1%, ±1%, ±1%, ±1%, ±1%, ±1%
±10 dBFS ±100 dBc	±100%
±0.1%	0.1%
FM (dBFS dBc)	±1%, ±1%, ±1%, ±1%, ±1%
±10 dBFS ±100 dBc	±100 dBM
±17.5 dBM	±17.5 dBM
FSK (dBFS dBc)	±1%, ±1%, ±1%, ±1%, ±1%
±100 dBc ±100 dBc	±100 dBc
±180 Å	±180 Å
PSK (dBFS dBc)	±1%, ±1%, ±1%, ±1%, ±1%
±0.1 dBFS	±2 dBM
±500 dBc (35 dBM)	±500 dBc
±180 Å	±180 Å

#	f1	L
≠███████	████████  T███ , ███████  ████ , ███████  ████	
≈███		
███████  T██████	½ 0  π  π ½ 150  π  ¼ 9999 π	
T█	10  π	
≈██████  ████  ████		
███████  ████	½ 500  π  ¼ 9901 π (½ 2 ⌂∞+ π 101 +  ∞+)	
T█	10  π	
≈███  ████  ████  ████  ████		
√█████  ████	TTL-█████  █████  █████	
█████	███████  █████  █████ , ██████████████████  █████	
T█████  ████	>100  π	
√█████  ████  ████	>1  π  (█ █████████████  ████ )	
≈█████  (T ██, T ██, T ██)	█████  100  π	
T ██ ██		
≈█████  ████	2	
≈███  ████	TTL-█████  █████  █████	
T█████  ████	50  π	
J █████	█████████  █████  █████	
█████	50  π	
≈█████	█████████, █████  ██████ , ████ , █████	

	<p>10 <math>\Delta\omega</math>  <math>&lt;1 \text{ ppm}</math> (Hz)  <math>&lt;1 \text{ Hz}</math>. <math>\mu\text{Hz}/\sqrt{\text{Hz}}</math></p> <p>10 <math>\Delta\omega</math>, 5 <math>\Delta\omega</math>, 2 <math>\Delta\omega</math>  <math>&lt;5 \cdot 10^6</math>  <math>\pm 0.5 \sqrt{\text{Hz}} \leq 2 \sqrt{(\text{Hz})} \leq 50 \text{ Hz}</math></p> <p>50 <math>\text{fHz}</math></p> <p>10 <math>\Delta\omega</math>  <math>&gt;0.5 \sqrt{(\text{Hz})} \leq 50 \text{ Hz}</math></p> <p>50 <math>\text{fHz}</math></p>	
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	<p>USB host</p> <p>USB B</p> <p>USB 1.1</p> <p>Universal USB</p> <p>USB A</p> <p>USB 1.1</p> <p>USB-B</p>	
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	<p>100 <math>\sqrt{\text{Hz}}</math> 240 <math>\sqrt{\text{Hz}}</math> <math>\mu\text{Hz}/\sqrt{\text{Hz}}</math> (100 <math>\sqrt{\text{Hz}}</math> 240 <math>\sqrt{\text{Hz}}</math>). <math>\pm 50 \text{ Hz}</math> 60 <math>\omega</math></p> <p><math>&lt;35 \sqrt{\text{Hz}}</math></p>	
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<sup>1)</sup>  $\sqrt{\text{Hz}}$  100  $\sqrt{\text{Hz}}$  240  $\sqrt{\text{Hz}}$   $\mu\text{Hz}/\sqrt{\text{Hz}}$  100  $\sqrt{\text{Hz}}$  240  $\sqrt{\text{Hz}}$  50%.

<sup>2)</sup>  $\Delta\omega$   $\mu\text{Hz}/\sqrt{\text{Hz}}$  100  $\sqrt{\text{Hz}}$  240  $\sqrt{\text{Hz}}$   $\mu\text{Hz}/\sqrt{\text{Hz}}$  100  $\sqrt{\text{Hz}}$  240  $\sqrt{\text{Hz}}$ .

<sup>3)</sup>  $\text{fHz}$   $\mu\text{Hz}/\sqrt{\text{Hz}}$  100  $\sqrt{\text{Hz}}$  240  $\sqrt{\text{Hz}}$ .

<b>Общие характеристики</b>	
<b>Дисплей</b>	
Тип	Цветной ЖК-дисплей, активная матрица 5,4"
Размер экрана	320 x 240 пикселей
<b>Область памяти</b>	
Настройки прибора	8
<b>Условия окружающей среды</b>	
Диапазон рабочих температур	от +5 град. С до +45 град. С, в соответствии с DIN EN 60068-2-1/2
Диапазон температур хранения	от -20 град. С до +70 град. С
Относительная влажность	95% при +40 град. С, в соотв. с DIN EN 50058-2-3 (конденсат не образуется)
<b>Механическая прочность</b>	
Вибрация, гармонич.	от 5 Гц до 150 Гц, макс. 2g при 55 Гц, в соответствии с DIN EN 60068-2-6; от 55 Гц до 150 Гц, 0,5g фиксированное, в соответствии с DIN EN 61010-1 и MIL-T-28800D, класс 5
Вибрация, случ.	от 10 Гц до 500 Гц, 1,9g, в соответствии с DIN EN 60068-2-64
Ударопрочность	Диапазон ударн. воздействий в соотв. с DIN EN 60068-2-27 и MIL-STD-810
Электромагнитная совместимость	в соотв. с EN 55011, класс В и EN 61326 (директива EMC 89/336/EEC)
Напряженность эл/м поля	<10 В/м
Класс защиты	в соответствии с DIN EN 61010-1 / IEC61010-1 UL3111-1; CSA22.2 №1010.1
Размеры (ширина x высота x длина)	219 мм x 147 мм x 350 мм
Вес	6,2 кг

## Информация для заказа

<b>Двухканальный генератор сигналов произвольной формы R&amp;S® AM300</b>			
Описание	Тип	Код заказа	
Двухканальный генератор сигналов произвольной формы R&S® AM300 (включая компьютерное программное обеспечение R&S® AM300-K1)	R&SE AM300	1142.1998.03	
Waveform Composer (компьютерное программное обеспечение формирователя сигналов, лицензированное для 5 приборов)	R&SE AM300-≤2	1147.2013.02	
Стоечный адаптор	R&SE ZZA300	1147.1281.00	



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PD 0758.0897.32 · R&S®'AM300 · Version 01.00 · February 2003 · Data without tolerance limits is not binding · Subject to change