

ARRL Flex 3000, November 2009 data (updated TRX board version G or higher)

Frequency MHz	PreAmp on/off	spacing 20/5/2 KHz	Input level dBm	IMD Level dBm	IMD DR dB	MDS	IP3 Calculated Equation dBm
14	off	20	-22	-121		99	-121
			<b>-14</b>	<b>-97</b>			<b>28 IP3=(3*(Input Level)-(IMD Level))/2</b>
			0	-13			7 IP3=(3*(Input Level)-(IMD Level))/2
14	level 1 on	20	-27	-126		99	-126
			<b>-19</b>	<b>-97</b>			<b>23 IP3=1.5*IMD DR+MDS</b>
			-36	-135		99	-135
14	level 2 on	20	-27	-135		99	-126
			<b>-27</b>	<b>-97</b>			<b>20 IP3=(3*(Input Level)-(IMD Level))/2</b>
			-23	-121		98	-135
14	off	5	-23	-121		98	-121
			<b>-14</b>	<b>-97</b>			<b>14 IP3=1.5*IMD DR+MDS</b>
			0	-14			<b>8 IP3=(3*(Input Level)-(IMD Level))/2</b>
14	off	2	-26	-121		95	-121
			<b>-14</b>	<b>-97</b>			<b>26 IP3=1.5*IMD DR+MDS</b>
			0	-14			<b>28 IP3=(3*(Input Level)-(IMD Level))/2</b>
			0	-14			7 IP3=(3*(Input Level)-(IMD Level))/2

Walter, HB9AJG's tests on Mercury August 2009

Dither enabled, Random enabled

14	off	20	-15	-114		99	-114	35 IP3=1.5*IMD DR+MDS
14	on	20	-21	-114		93	-134	6 IP3=1.5*IMD DR+MDS
14	on	20	-25	-125		100	-134	16 IP3=1.5*IMD DR+MDS
14	on	20	-30	-124		94	-134	7 IP3=1.5*IMD DR+MDS
14	on	20	-35	-133		98	-134	13 IP3=1.5*IMD DR+MDS
Dither enabled, Random enabled								
14	off	20	-15	-114		99	-114	35 IP3=1.5*IMD DR+MDS
14	off	20	-60	-113		53	-114	-35 IP3=1.5*IMD DR+MDS
Dither enabled, Random disabled								
14	off	20	-15	-97		82	-115	8 IP3=1.5*IMD DR+MDS
<b>14</b>	<b>off</b>	<b>20</b>	<b>-15</b>	<b>-97</b>		<b>82</b>	<b>-115</b>	<b>26 IP3=(3*(Input Level)-(IMD Level))/2</b>
14	off	20	-20	-96		76	-115	-1 IP3=1.5*IMD DR+MDS
14	off	20	-30	-93		63	-115	-21 IP3=1.5*IMD DR+MDS
14	off	20	-40	-91		51	-115	-39 IP3=1.5*IMD DR+MDS
14	off	20	-50	-91		41	-115	-54 IP3=1.5*IMD DR+MDS
14	off	20	-60	-99		39	-115	-57 IP3=1.5*IMD DR+MDS
14	off	20	-70	-114		44	-115	-49 IP3=1.5*IMD DR+MDS
Dither disabled, Random enabled								
14	off	20	-15	-107		92	-117	21 IP3=1.5*IMD DR+MDS
14	off	20	-20	-113		93	-117	23 IP3=1.5*IMD DR+MDS
14	off	20	-30	-96		66	-117	-18 IP3=1.5*IMD DR+MDS
<b>14</b>	<b>off</b>	<b>20</b>	<b>-30</b>	<b>-96</b>		<b>66</b>	<b>-117</b>	<b>3 IP3=(3*(Input Level)-(IMD Level))/2</b>
14	off	20	-40	-100		60	-117	-27 IP3=1.5*IMD DR+MDS
14	off	20	-50	-111		61	-117	-26 IP3=1.5*IMD DR+MDS
14	off	20	-60	-115		55	-117	-35 IP3=1.5*IMD DR+MDS
Dither disabled, Random disabled								
14	off	20	-15	-97		82	-118	5 IP3=1.5*IMD DR+MDS
<b>14</b>	<b>off</b>	<b>20</b>	<b>-15</b>	<b>-97</b>		<b>82</b>	<b>-118</b>	<b>26 IP3=(3*(Input Level)-(IMD Level))/2</b>
14	off	20	-20	-96		76	-118	-4 IP3=1.5*IMD DR+MDS

14 off	20	-30	-93	63	-118	-24 IP3=1.5*IMD DR+MDS
14 off	20	-40	-91	51	-118	-42 IP3=1.5*IMD DR+MDS
14 off	20	-50	-95	45	-118	-51 IP3=1.5*IMD DR+MDS
14 off	20	-60	-100	40	-118	-58 IP3=1.5*IMD DR+MDS
14 off	20	-70	-116	46	-118	-49 IP3=1.5*IMD DR+MDS

W9KFB Test on Mercury with Dither enabled and Random enabled

14 off	20	-16	-97	<b>81</b>	<b>-114</b>	<b>25 IP3=(3*(Input Level)-(IMD Level))/2</b>
14 on	20	-19.3	-98	78.7	-131	<b>20 IP3=(3*(Input Level)-(IMD Level))/2</b>
14 off	5	-18	-97	79	-114	<b>22 IP3=(3*(Input Level)-(IMD Level))/2</b>
14 on	5	-21.2	-97	75.8	-131	<b>17 IP3=(3*(Input Level)-(IMD Level))/2</b>